

THE
INDIAN TEACHER'S GUIDE
TO THE THEORY AND PRACTICE OF
MENTAL, MORAL, AND PHYSICAL
EDUCATION

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INDIAN EDUCATIONAL SERVICE, BOMBAY.

"A race of real children ; not too wise,
Too learned or too good, . . .
Simplicity in habit, truth in speech,
Be these the daily strengtheners of their minds ;
May books and Nature be their early joy,
And knowledge, rightly honoured with that name—
Knowledge *not purchased by the loss of power.*"
—Wordsworth.

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“ If any man be able to convince and show me
That I do not think or act right, I will gladly change; for
I seek the Truth, by which no man was ever injured,
But he is injured who abides in his error and ignorance.”

—*Marcus Aurelius.*

P R E F A C E.

IT is the object of this book to fill the void due to the absence of a work on School Method *written for Indian conditions* by an educationist of both Eastern and Western experience, and to meet the long-felt need of one.

It is hoped that it will be found useful by teachers in general, and by students in training and untrained teachers in particular.

Difficult scientific terminology has been avoided as far as possible, and common sense has been expressed in plain language.

The author has endeavoured to show both the ideal path and the best real path—the ideal method when the teacher's object is Education pure and simple, and the best real method when his object is Instruction in order that the pupil may pass an examination.

It is useless to point out the former only, when the latter is compulsory ; but the author hopes that he has made it clear that even when the teacher's work is necessarily directed towards preparation for the inevitable examination, it will be better and more successful and more *paying* work, if it is educational

and directed to the training of Observation and Reasoning, as well as to the training of Memory. The boy who faces an examination relying on his faculties is in better case than one who faces it relying on his facts ; better relying on what he can do than on what he can remember.

But whether the examination be near, far, or non-existent, let us remember that children are more important than "subjects," that character comes before intellect, and that what children *know* is of no moment as compared with what they *are*.

P. WREN.

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CONTENTS.

PART I.

THE THEORY OF EDUCATION.

CHAPTER	PAGE
I. EDUCATIONAL THEORY IN GENERAL	5
II. MENTAL EDUCATION	15
III. MORAL EDUCATION	27
IV. PHYSICAL EDUCATION	37
V. THE TEACHER	45
VI. THE SCHOLAR	53
VII. THE CLASS-ROOM	59

PART II.

THE PRACTICE OF EDUCATION.

SECTION I.—GENERAL PRACTICE.

VIII. CLASS MANAGEMENT—DISCIPLINE AND TEACHING	69
IX. TEACHING DEVICES	87
X. SPECIAL METHODS: SOCRATIC, HERBARTIAN, AND HEURISTIC	103

SECTION II.—DETAILED PRACTICE.

APPLICATION OF THE PRINCIPLES OF EDUCATION TO THE TEACHING OF THE ORDINARY CLASS SUBJECTS.

XI. THE TEACHING OF ENGLISH	115
XII. THE TEACHING OF READING AND SPELLING	129
XIII. THE TEACHING OF WRITING AND DICTATION	143

CHAPTER	PAGE
XIV. THE TEACHING OF RECITATION	153
XV. THE TEACHING OF COMPOSITION AND ESSAY-WRITING	161
XVI. THE TEACHING OF PARAPHRASE	171
XVII. THE TEACHING OF HISTORY	181
XVIII. THE TEACHING OF GEOGRAPHY	189
XIX. THE TEACHING OF ARITHMETIC	199

PART III.

AN ANTHOLOGY OF EDUCATIONAL AXIOMS, MAXIMS,
AND *OBITER DICTA*, WITH NOTES.

XX. EDUCATIONAL MAXIMS—THEORY	209
XXI. TEACHING MAXIMS—PRACTICE	227

APPENDICES.

I. QUESTIONS FOR CONSIDERATION	241
II. A SCHEME OF EXERCISES FOR MUSCULAR DEVELOPMENT	281
III. A LIST OF USEFUL HISTORICAL BALLADS AND NOVELS	299

INTRODUCTION.

A QUARTER of a century ago, the Headmaster of Uppingham, a great practical educationist, wrote with regard to the system of "education" prevailing in England in his day :—

"If the whole nation was passed through a system of Chinese foot-bandages in childhood, what would become of our workmen and soldiers? But schools *do* pass the whole nation through a course of bandaging; and if the bandaging is wrong, the club-footed mind, with one perverted idea, like an excrescence, praised because it is unusual and artificial, becomes very possible. Supposing the due proportion between two great principles is lost, Intellect versus Character, for example, *and the intellect is fed at the expense of the body and feelings*, the nation becomes all head and no body, like a dwarf, and its leaders do incalculable mischief by having their humanity thus stunted and distorted, with much power, and little sympathy to make the power kindly. Or perchance, the failures lose all sympathy and gain little power, and become

hollow-headed animals. The prize-winners big-headed dwarfs, the neglected boys hollow-headed animals, with no intellectual skill, and yet bred up to put faith in intellect, *and to fall a prey in consequence to every talker of words*, till a plague of words possesses the land. Once more, how ought the State to deal with the leaders of thought and knowledge—the teachers? Should they be considered as *skilled workmen engaged in work requiring consummate skill*, who understand their work and are ready to do it? Is it in teaching *only* that *to have had no experience qualifies for being an authority?* ”

Although these words were written for a different generation of a different people of a different country, they might have been written especially for the teachers of India to-day. For in those schools (and their name is legion) in which “the intellect is being fed at the expense of the body and the feelings” the teachers are actually engaged in producing the “big-headed dwarfs and hollow-headed animals, to fall a prey to every talker of words,” because though “engaged in work requiring consummate skill” they are not “skilled workmen”. Or, where they are, it is because they have voluntarily, or under compulsion, abandoned their high duty of training boys and making men, in favour of multiplying unnecessary examinations and producing successful and unsuccessful examinees (the big-headed dwarfs and hollow-

headed animals respectively). Dr. Thring's warnings and advice received attention, and the evils responsible for the production of the dwarfs and the animals were grappled with. Teachers were trained ; and examinations were relegated to their proper place in Education, were reformed in method, and diminished in number.

The teachers, then, not only knew *how* to train and develop the mental, moral, and physical powers of the children, *but were required to do this*, instead of preparing them for examinations.

It was realized that a real teacher is an accomplished scientist and a skilled artist, and that a fine child is better than a fine certificate. Also, that the child is more important than the subject he studies, and that preparation for memory examinations is not preparation for life and the world.

The Government refused grants to schools of which the teachers were not trained, and abolished entirely the examinations by the results of which the grants were assessed. Schools were no longer commended for their putting-in capacity, but for their leading-out capacity ; no longer for cramming one faculty but for developing all. Inspectors who had before been mere examiners of children became actual inspectors—of teachers and schools. Education began to supersede cram ; the skilled and scientific teacher to supersede the ignorant fact-giver ; the healthy, happy, and intelligent child to supersede the weary, pallid examinee.

In India there is need of reform along exactly the same lines. We need more trained teachers and fewer examinations, more development of faculty and less cramming with facts. Indeed, without the diminution in the number of superfluous examinations for children, and still greater diminution in the respect for all examinations, the trained skilled teachers are useless. To set a lover of children—who has devoted years to the study of psychology, physiology, and “morality,” and years to the gaining of experience of children; who has the power and the desire to evoke, train, develop, and discipline every mental, moral, and physical faculty of the child until he is intelligent, honest, and healthy, and fit to enter the battle of life and face the world and its difficulties, temptations, and trials—to set him to cram memories with miscellaneous useless information until the child's mind resembles a pawnbroker's storeroom, and is about as productive of original creations, is a sad waste. We do not need to forge razors to cut faggots, nor to train teachers to fling facts. What we do need is to train men who know what Education means and what Instruction is worth.

In India, perhaps more than anywhere else in the world, unless it be China, has Education suffered from the misapprehension of the position and value of examinations in the system of children's mental training. Examinations have become the end instead of being a means, and it is at last being recognized that

in the past few years they have been so foolishly multiplied in number and magnified in regard, that the deliberate aim of the teacher has come to be the production of an examinee instead of the production of a man, and the aim of the pupil the hasty and superficial amassing of facts instead of mental, moral, and physical improvement.

As soon as the examination becomes the great end, cramming becomes the royal road; and no one, boy or college student, was ever one whit the better in mind, body, or character for cram.

Let us (if such a thing be possible) keep examinations as one of many useful means to the true end—development; and let us regard the child as an organism to be developed, and not as a receptacle to be stuffed.

Let us also remember that he has a body, a soul, and a mind, as well as a memory.

P. WREN.

PART I.
THE THEORY OF EDUCATION.

“ The end of Education is to prepare us for complete living. For complete living we must know in what way to treat our body, in what way to treat our mind, in what way to manage our affairs, in what way to bring up a family, in what way to behave as a citizen, in what way to utilize those sources of happiness which nature supplies—how to use all our faculties to the greatest advantage of ourselves and others.”—*Herbert Spencer*.

“ The entire object of true Education is to make people not merely do the right things, but enjoy the right things : not merely industrious, but to love industry ; not merely learned, but to love knowledge ; not merely pure, but to love purity ; not merely just, but to hunger and thirst after justice,”—*Ruskin*.

CHAPTER I.

EDUCATIONAL THEORY IN GENERAL.

"In any case we must make up our minds to get rid of the assumption that the first object is to cram the learner's mind with the maximum amount of knowledge to be reproduced in examination."—*Rein.*

"Life forms a complete whole, hence in the education of the child there must be unity and harmoniousness."—*Froebel.*

"The value of knowledge culminates in its use."—*De Garmo.*

"Training is the object of true education, knowledge is secondary."—*Thring.*

CHAPTER I.

EDUCATIONAL THEORY IN GENERAL.

"To prepare us for complete living is the function Education has to perform."—*Herbart*.

"It is the bane of our schools to confound Men with Knowledge."—*Agassiz*.

WHAT IS EDUCATION?

THE question may be answered in one word: DEVELOPMENT. It is the natural and harmonious development of all the powers of character, mind, and body; and the work of the true educationist is simply the awakening, developing, and training of these powers to their highest possible perfection. His object must be the production of the perfect man, sound in character, active in mind, and strong in body. If examinations enter into his system they must be used towards this end, and must not be the end in themselves. If the Indian teacher will remember that examinations were made for boys, and not boys for examinations, there is hope of his becoming a genuine educationist and benefactor of the young. While he regards the passing of examinations as the sole test and standard of his work and the goal of his ambitions, he is neglecting the greatest opportunities for good, and creating and using great opportunities for evil.

Education is not solely instruction; and development is not achieved by the "imparting" of miscellaneous useful and useless knowledge. Facts are of value rather *in* acquisition, than *for* acquisition, and the same fact may be learned by one boy with great mental benefit, and by another with no mental benefit. In the one case its acquisition was the result of the mental processes of observation and reasoning; in the other it was merely flung by the teacher into an already over-burdened memory.

In fact "education" in India has (owing to the misapprehension and abuse of examinations) come to be mere over-education of the memory alone. This might be called one-ninth part of an education, inasmuch as we may consider education to be threefold, mental, moral, and physical; and we may here consider mental education to be again threefold, as education of the powers of Observation, Reasoning, and Memory.

It should be the object, then, of the honest and scientific teacher to train and develop every faculty of mind, body, and character, and to avoid both atrophy and hypertrophy of any. We cannot very well educate body and soul with a view to the passing of an examination, and there is no reason why we should educate the mind solely with a view to its examination. The preparation of the child to pass successfully through the world is a better work than that of his preparation to pass successfully through the examination room. Nor does the ability to do the latter imply the ability to do the former. It is, however, undeniable that the pupil who is *educated* upon the soundest scientific methods will do far better in a properly conducted examination than the one who is merely *crammed*. (By "properly conducted" we mean one in which the questions test intelligence and ability, and not memory alone.)

Genuine education can only make him more honourable, steadfast, and reliable in character; more strong, healthy, and capable in body; and more observant, thoughtful, and tenacious in mind. Cramming can only make him an unoriginal, if faithful, follower of the mental processes of others, and leave his body and character undeveloped, when not actually injured.

In India it is not the fault of the teacher (though it is the terrible misfortune of the taught) that "education" has come to be the pursuit of a useless thing for a more useless purpose, instead of *development of faculty*. The senseless multiplication of examinations and the apotheosis of the examiner has turned one of very many *means* to the sole *end*, and the acquisition of useless knowledge for the passing of an examination is now the business of the vast majority of schools. The result is, of course, obvious and inevitable. Neglect of the body, the character, and two of the

three great mental processes, in favour of one of the latter, cannot but tend to the hypertrophy of this at the cost of the atrophy of the rest ; and while "education" in India is the ceaseless preparation for endless examinations it is rather illogical to express surprise at the poverty of physique, character, and ability of its "product". Teachers must cease the multiplication of examinations on their own account, and prepare their pupils, for those for which they are not responsible, by education and not by cram. They must aim at training the intelligence of their pupils by educational methods, that the latter may pass these examinations in the light of their intelligence and ability (and not by means of a memory cruelly over-loaded with uncomprehended things). The young Indian child is remarkably intelligent, active, and observant. He (or she) is full of curiosity and interest in environment. Too often the child soon becomes lethargic, dull, uninterested, and quite incapable of sustained mental or physical effort. This is partly due to climate, heredity, and pernicious social customs, but it is also partly due to the evil system which has compelled his teacher to regard him rather as an elastic receptacle of facts than as a seedling or growing plant.

Is the teacher to be an ignorant coolie and the child a vessel to be filled by the shovelful ; or is he to be an intelligent and scientific gardener, and the child a priceless plant to be trained up into a perfect tree bringing forth fruit in due season ?

Any dull person can shout facts from a book to a boy ; but the man who is going to build up character, strengthen and develop body, and evoke, discipline, train, and direct intellect, must make a long and careful study both of his material and his tools, and of their methods of use. He must then set to work with the *betterment of the child in mind, body, and soul* as his object, and regard examinations as incidents, of which the less the merrier. He must not say to himself : "Here are children. There is the examination. Through they go if they die for it," as a shockingly large number of teachers appear to do. He must say : "Here are children entrusted to my charge, for me to make into the best type of citizens, fathers, workers, and men. I must do all that lies in my power to make them honest in character, healthy in body,

and capable in mind. Facts and examinations I will use *to this end*, and only in so far as they serve and further this end."

A man will find that the *knowledge* acquired at school will be practically valueless to him in life. If, therefore, his time at school has been spent in the acquisition of knowledge for examination purposes, his time at school has been wasted. A man, on the other hand, will find that the powers of Observation, Reasoning, and Memory developed and trained at school by *education* (together with the sterling character and the healthy body) will be of the utmost value to him in life. The outfit which we must give the Indian boy is not a knowledge (by heart) of the propositions of Euclid, of Latin derivations, of Anglo-Saxon history, of heights of mountains, lengths of rivers, areas of countries, dates of battles, chemical formulæ, Browning's poetry, or Macaulay's Essays—but steadfastness of character, health and strength of body, and initiative, originality, and deductiveness of mind.

The Indian teacher must aim at the boy and not at the examination. He must point triumphantly at the living products of his labour and not at pieces of printed paper. He must realize that he has deserved better at the hands of gods and men by the production of one child truly *educated* in character, body, and mind, than by the production of one hundred 100 per cent pass-lists. And, as has been said before, he must realize, so long as examinations last, that his pupils will do him more credit in examinations if they are *educated* than they will if they are *crammed*. The knowledge of a fact meets a single case, the knowledge of a process meets thousands. The boy who *knows* can answer the *one* question asking for what he knows: the boy who *thinks* can answer most reasonable questions. But the further we pursue this point the deeper we sink into the old mire where flounder those who have come to regard the examination as more important than the boy, and his ability to face the examiner as more important than his ability to face the world.

The teacher must not lose sight of the fact that his pupils will never *use* Sanskrit, for example, in after life. He is not teaching it because of its practical utility, but because a mental and moral training may be received if Sanskrit is taught properly, scientific-

cally, and educationally. Nor will they ever use Euclid, Algebra, School Chemistry, Astronomy, or Mechanics in their daily lives. These subjects are not taught as a valuable equipment for the world, nor should they be taught to please or hoodwink an examiner. They are taught with the object of strengthening and developing the pupil's power to observe a fact, to reason about the fact, and arrive at a logical conclusion, and to remember that conclusion, if it is worth remembering (which few conclusions are).

History and geography are not taught in the hope that they will enable the pupil to travel or trade more comfortably, nor because they are forms of practically useful knowledge. They are subjects of the school curriculum because they are means of mental and moral development, and they must be so taught as to serve the intended purpose. It is easy (and quite customary) to so teach them that there is no slightest jot or tittle of mental or moral benefit, but merely another straw contributed to the burden already tending to break the back of that camel of the mind, the Memory.

Owing to the dangerous abuse of examinations, which are, at best, a very edged educational tool, the Indian teacher has come to have a serious misconception of the value and use of the fact. A fact may be acquired and remembered for life, and be *utterly useless*. A fact may be acquired to-day and forgotten to-morrow and have served a very useful purpose. Culture is the result of *the proper acquisition* of the knowledge of facts and processes. THE KNOWLEDGE GOES BUT THE CULTURE REMAINS. It is a most erroneous belief, that the teacher has to see that his pupil gets facts and keeps them. Ninety-nine decimal nine per cent of facts are worthless and useless in themselves. It is the *act* of acquisition that is the sole matter of importance. The fact given by the teacher and accepted by the pupil, compared with the fact arrived at by the pupil himself by observation and reasoning under the teacher's guidance, is as the cup bought and exhibited by the pseudo-athlete compared with the cup won by the genuine athlete by careful training and mighty effort. Even in this latter case

the cup is in itself of infinitely less value than the personal efforts that won it. The efforts gave health and strength and these are the real prize. Similarly the personal observation and deduction leading to a conclusion give mental health and strength, and these are the real prize. To give the conclusion ready-made, and a prize for remembering it, is to travesty education.

If an athlete use a piece of gymnastic apparatus so regularly and strongly that he breaks it and throws it away, his strength and muscular development do not go with it. If a child, by observation and reasoning, arrives at a conclusion and then forgets it, the mental training and development do not depart with it. It has served its purpose. It is told of a famous and learned judge of great judicial acumen and wisdom, that when a young pleader contradicted him on a point of law, he remarked "I have forgotten more law than you ever learnt!" Exactly. He had forgotten the actual words and facts but the legal training and culture remained behind, and could not be lost. "Culture" has been described as "that which remains when we have read a book and forgotten it," and teachers must bear in mind that their facts are to be forgotten, sooner or later, and that everything depends upon *how* the pupil acquired the facts. If they were rammed down his throat, as it were, they will be forgotten the more quickly, and, departing, leave behind them no footprints on the sands of mind. If they were acquired by the pupil's own guided observation and reason they will remain longer, and when forgotten will have served their purpose in having exercised, strengthened, and developed those powers of observation and reason by which they were acquired.

There is something misleading, perhaps, to the young teacher in the metaphors "mental pabulum," "food for the mind," "mental diet," and so forth. He is apt to come to look upon the bare *facts* of History, Geography, Science, Grammar, Euclid, etc., as important and necessary nutriment, without which the mind will starve and languish. In the light of this belief he stuffs and stuffs the unfortunate mind as prize poultry is stuffed, and just as the liver of the Strasburg goose is hypertrophied to the detriment of

the remainder of the body, so is the memory of the pupil hypertrophied to the detriment of the remainder of the mind. The pupil brought up on this system has a remarkable assimilative power, and can for a time amass vast hoards of facts with great ease and celerity. But what of his initiative, imagination, observation, deductive power, and originality? What of his character? What of his body? It is a poor boast for a school staff to say of its pupils "We have had these boys for seven years and they leave us equipped with a grand array of useless facts and a great ability to follow other people and stick to routine. Seventy per cent of them have certificates certifying this. More we cannot say." It is a poor reply to the question "What of their character and physique?" to say "There are no examinations in character and physique, and therefore we are not concerned with them". It is a poor ambition to get boys through an examination in matters with which they have no concern the day after the examination, and the acquisition of which leaves them no whit the wiser or better, but frequently enfeebled and disgusted.

It is far better for the teacher to change his metaphor and not regard facts as mental food at all. They are better regarded as gymnastic apparatus, as dumb-bells, or perhaps as the materials with which the mind shall build its castles in the air. The teacher is more likely to keep before him a correct and just conception of the function of the fact by this means. Let the boy deal with it, and then let him forget it by all means. It has done its work; let it go. If it was rightly presented by the teacher, the mind has used it as the athlete uses the dumb-bell. The dumb-bell is a mere useless dead-weight if put in the pocket, and so is the fact when lying in the mind. It is in the act of using it, and only *when* using it, that the dumb-bell is beneficial, and so with the fact. If the child observes, reasons, and arrives at a conclusion he has used his facts as mental dumb-bells, and strengthened and developed his mental muscles, so to speak. There is no need for him to put the dumb-bell in his pocket afterwards. When education is reduced to the mere putting of the dumb-bell in the child's pocket by the teacher, that the child may take it to the examination-room and show it to the examiner

without ever having used it, educationists have strayed a very long way from the path of educational virtue.

Teachers must not regard boys as receptacles made for facts, but facts as apparatus for mental gymnastics on the part of the boys.

The attainment of this point of view is the first step on the way to the realization that boys do not really come to school to "learn" nor teachers to "impart instruction". That sort of "education" can be carried out by correspondence, and a gramophone can take the place of the teacher.

We do not want children to *know*, but we want them to *do* and to *be*. It is *power* that the teacher has got to "impart," and not knowledge; the power to *do* skilfully and to *be* strong and honourable. And this is not done by cramming with facts but by developing faculties. When pupils leave school the public should not ask the teacher "What do they *know*?" but "What *are* they, and what can they *do*?" And he should be able to reply: "They are upright in character, healthy in body, and capable in mind. They can see with their eyes, reason with their brains, and use their hands." This is much better than such things as knowing four books of Euclid by heart "all but the pictures".

From small beginnings the examination has grown and grown until it now overshadows all education in this country, and looms so large in the eyes of the teacher that he cannot see beyond it. It has so narrowed his horizon that he has forgotten that education is preparation for life, and thinks that it is preparation for the nearest examination. The conditions under which the boy is going to live his life are of no moment beside the conditions of the examination. The requirements of the community are as nothing beside the requirements of the examiner. And the end no more justifies the means than the means justify the end.

CHAPTER II.
MENTAL EDUCATION.

"To teach is to form mental habits".—*Fowler*.

"The trained mind is worth all the knowledge in the world".—*Thring*.

"Interest is the first requisite in a lesson".—*Currie*.

"Do just the opposite of what has been done and you will do right".—*Rousseau*.

"Unfortunately Education amongst us at present consists too much in telling, and not in training".—*Mann*.

"The first aim in all teaching is to evoke, charm, cajole, compel this attitude of attention".—*Bain*.

"The impression which anything makes on the mind depends much on the degree of attention given to it".—*Stewart*.

"The reform needed is not that the school coach should be better horsed, but that it should be turned right round and started on a new track".—*Pestalozzi*.

"Facts and ideas have a real and useful influence over the mind only when the mind systematizes and co-ordinates them with other facts and ideas as they are produced".—*Guyon*.

"Memory knowledge as such is absolutely useless. Memory-knowledge as training is worse than useless. Memory-knowledge is often a disguise for mental incapacity. Dead lumps of memory-work are dead, and a parrot is a parrot whether dressed in feathers or a coat".—*Thring*.

"The mind is not a vase to be filled, but a hearth which is to be made to glow".—*Plutarch*.

CHAPTER II.

MENTAL EDUCATION.

"Men of capacity, and possessing qualities for *useful actions*, are at a premium all over the world, while men of mere 'education' are at a deplorable discount."

"A great memory is not a great mind."—*Tate*.

THE proper object of all teaching is the exercise, for training and development, of the mind. We do not teach to store the mind with knowledge, but to develop it; not to give it "learning," but to give it the power to learn; not to feed and fatten it, so to speak, but to make it muscular, active, and skilful.

Mental Education deals with mind, "mind must touch mind," and the more the teacher knows about the mind of the child, the better will it be for both. This knowledge of the child-mind he must obtain at first-hand by the observation of children in their play and work; books can only guide his observation, they cannot take the place of children.

What is Mind in the beginning? Is it that which knows, feels, and wills, or is it the resultant of the constant exercise of the physical power to see, hear, feel, taste, and smell? Is it built up of its own contents like a coral-reef, or is it a ready-made machine with which the child is born? Has the mind inborn ideas, has it innate faculties and abilities for learning? Or is it a blank page on which the senses eternally write, and from which some of the writing fades, and on which some is indelibly written?

If we regard the mind as originally possessed of absolutely no power but the *receptive* power, we must logically regard the business of the teacher as being the work of causing it to *receive*, of feeding it, of building it up, of stuffing and fattening it for market as it were.

But what reason have we for supposing that the mind is simply and merely receptive; simply and merely passive; simply and merely possessed of the ability to enter into relationship with things outside itself? Why cannot we regard it as being, from the first, as intrinsically potential an embryo as the new-born body? Why should the mind, any more than the body, be regarded as exclusively "receptive," and built up of its own contents? We know that animals *inherit* "instinctive" knowledge. Doctors disagree.

One thing is certain, however, that by the time the child reaches the teacher his mind is already an active, growing, developing organism, and already furnished and equipped with certain powers and abilities, and the results of the use of those powers—a store of knowledge, presentations, or "sense percepts," acquired by observation, experience, and intercourse.

Certain it is, that by the time the teacher is called upon to deal with him, his mind manifests itself in Intellect, Emotion, and Volition, that is in its power to *FEEL*, to *KNOW*, and to wish or "*WILL*".

"Mental Science adopts this threefold division. (1) Under *Feeling* we include all pleasurable and painful conditions of mind. These may be very simple feelings, having definite bodily causes, such as the painful sensations of hunger and thirst, or the pleasures of the palate. Or they may be of a more complex nature, such as love or remorse. (2) *Knowing*, again, includes all operations which are directly involved in gaining knowledge, as, for example, observing what is present to the senses, recalling the past, and reasoning. (3) Finally, *Willing* or *Acting* covers all active mental operations, all our conscious doings, such as walking, speaking, attending to things, together with efforts to do things, active impulses, and resolutions. The perfect type of action is doing something for an end or purpose; and this is what we ordinarily mean by a voluntary action."—*Sully*.

It is noteworthy that whenever the mind works, these three operations are performed. We cannot feel without knowing and willing, we cannot know without feeling and willing, we cannot "*will*" without knowing and feeling. It must not be supposed, however, that the three operations are always equal. For example, if the teacher shows the class a live snake on which he is about to give an object-lesson, the mind of each child becomes active

through interest. There is a *feeling* of pleasurable interest, and it is in Feeling that the mind is chiefly manifesting itself, but the attention is paid by an effort, though a very slight one, of *will*, and in recognizing the snake the mind is manifesting itself in *knowing*; so that Willing and Knowing are co-operating in a very minor degree with Feeling in this particular effort.

Again, if the teacher is giving a dull, uninteresting, oral lesson, the mind of each child is active chiefly through the operation of the *will*. The child is not interested, and *feeling* is comparatively inactive, and as the observation and intellectual results are small there is little *knowing*. Here Knowing and Feeling are co-operating in a very minor degree with Willing.

On the other hand, when a boy sees his own exercise-book among others and recognizes it, the operation of the mind is chiefly one of *knowing*. There is *feeling* as he is glad to have found it, and there is *willing* in the act of concentrating the mind upon the fact that this is his book. Here Willing and Feeling co-operate in a very minor degree with Knowing.

Having realized that the mind of the child, whom he is going to educate, is composed of Intelligence, Emotions, and Will, the teacher must keep before him the fact that his duty is to train, develop, strengthen, and perfect the Intelligence; to appeal to, train, and discipline the Emotions; and arouse, strengthen, and guide the Will.

Under the heading of Mental Education we are concerned chiefly with the first of these three aspects of the mind, the INTELLECT, and only with those aspects of Feeling and Willing which concern Interest and Attention.

The act of knowing is termed PERCEPTION, and the knowledge which is acquired by seeing, hearing, feeling, smelling, or tasting, is called sense-knowledge.

If a child has a perception of an object to-day and sees that object the next day with the "mind's eye" only, though it is not present before the bodily eye (i.e., forms a mental image of the object), the act of seeing with the "mind's eye" (or of forming the mental image) is an act of MEMORY.

If the child takes this mental material and constructs an entirely

new mental image, and sees with the "mind's eye" what it has never seen with the bodily eye, the act of transforming the old image and creating a new one is an act of IMAGINATION.

By means of Perception, Memory, and Imagination, the Intellect amasses knowledge through the senses, and after comparison and classification of the knowledge forms CONCEPTS (general notions), and from these proceeds to REASONING and CONCLUSION.

Thus in mental education we have to consider the training of the Intellect by means of causing Perception, Memory, and Imagination, leading to Concepts which shall form the bases of Reasoning and Judgment.

In other words the teacher must teach through the exercise of the powers of Observation and Reasoning, leading the child to form his own conclusion, and not merely giving him the conclusion ready-made.

Thus, although it is true that mind, character, and body are so interdependent that what affects one, to some extent affects the others, the teacher must study them separately and acquire a simple practical knowledge of Psychology, Physiology, and Morality if his art is to be founded on Science and he himself to be something higher than a mere empiric.

The best and most successful teacher (not ciammer) is he who can put himself most nearly in the position of the child, see the child's difficulties, get at the child's point of view, and follow the workings of the child's mind. In other words the "sympathetic" teacher is the best and "born" teacher.

Other successful teachers supplement this gift with (or substitute for it) a power of remembering their own childhood, its fears, joys, doubts, difficulties, and problems. They know exactly how *they* regarded certain school proceedings, rewards, punishments, praise, rebuke, and methods of treatment of things and children; and in the light of this invaluable knowledge they can work wonders. To both these types, a study of practical Psychology is beneficial, and to the ordinary unfortunate, who does not possess either, it is essential.

All mental education may be said to be epitomized in the process of observing a fact, reasoning as to its cause or effect, and remembering the conclusion arrived at. For this reason the scientific educationist selects those subjects, and those only, which give the greatest scope for Observation and Reasoning.

Typewriting may be more practically useful than Botany, Euclid, or Sanskrit, but inasmuch as it offers no scope for the development of the Intellect it is rejected as a means of mental education. Conversely the Object Lesson is entirely useless from the point of view of the commercial and utilitarian, but it is the most valuable and indispensable of all the early means of training the Intellect, as it is essentially a series of guided observations and deductions from what has been observed.

We know, of course, that in India it is frequently robbed of its value and changed into a new memory-burdening device by that large class of teachers who select the facts from a scheme of Object Lessons, dictate them with doubtfully explanatory "notes," and have the whole learned by heart. We know also that some head-masters and incompetent assistant deputy-inspectors compel teachers to do this by actually *examining* in object-lesson facts, as if the facts were in themselves of the very slightest value. But this lamentable state of affairs does not alter the fact that in the hands of the real teacher no lesson offers such magnificent opportunities for training the faculties of Observation and Reasoning as does the Object Lesson.

The author recollects hearing one of the most capable educational inspectors who ever worked in India describe an object lesson, given by one of the army of "teachers" who should have followed any other profession under the sun, in which the master gave a class of small Mohammedan boys *who spent most of their time in minding goats* a careful description of a goat to learn by heart, and, as a concession to some dimly realized obligation to question, proceeded to ask, "How many horns has a goat?" "How many legs has a goat?" "How many eyes has a goat?" "How many feet has a goat?" and highly commended the correct answers of his pupils. This constituted his training in Observation and Deduction!

There is no reason why an object lesson on the goat should not be given to young goatherds, and there is every reason why one should be given to them by a teacher capable of increasing their interest in their daily work. But no exercise is given to the power of Observation in answering a question directed to the Memory, nor any exercise to the power of Reasoning in learning by heart a description of something with which the learner is perfectly familiar in the concrete. Had the teacher in this case directed the notice of the class to the hitherto unobserved peculiarities of the animal's

teeth, feet, etc., compared them with those of the dog, etc., and led the class to draw conclusions and deductions from what they observed, the time could not have been spent more beneficially for the mental education of the children.

What has been learnt is no test of the value of a lesson. The only test is whether exercise has been given in the power to see and note what is before the eye, and to argue, reason, and deduce from what has been seen. Much will be remembered by virtue of the fact of the vivid presentment inseparable from the use of models, experiments, pictures, and actual objects, and by reason of the attention paid, through the interest aroused. But the proper attitude of the genuine teacher is tolerance of, and not insistence upon, the remembering of the facts of such lessons.

The facts in themselves are unimportant; the recognition of the facts and their manipulation is everything in the case of young children. A child is none the better mentally for being informed that water is a chemical compound of Oxygen and Hydrogen, or that air is a Mechanical Mixture of Oxygen and Nitrogen; but he will be mentally benefited by pursuing a train of thought, under the teacher's guidance, by "teaching-questions," as to *why* water and air are colourless, odourless, and tasteless, and as to what would happen if either of them were suddenly and universally endowed with the opposite qualities. The question "Why?" cannot be asked too often; the statement "It is" cannot be made too seldom.

Let us now consider the part played by FEELING and WILLING in school work.

The younger the child the more its mental operations consist of Feeling and the less they consist of Willing and Knowing. The practical application of this knowledge is obviously the making of all lessons so *interesting* that they appeal to this aspect of the child-mind. Later when the mental operations of the child become more intellectual, the need for interesting methods changes from essential to highly important, and from that to desirable, and later still to immaterial; but it is better that from the beginning of the primary course to the end of the high school course there should be present an extrinsic interest and an as-

sociation of pleasurable feeling arising from the deliberate introduction of interesting illustrations and proceedings in the earlier stages, and from novelty, change, emulation, praise, success, etc., in the later stages.

"Knowing" is closely associated with "feeling," and the more pleasurable the feeling the more active the intellect will be. And in connexion with this fact teachers must realize and remember that the exercise by the child of any power, activity, or ability he possesses gives pleasurable feeling.

As Feeling diminishes and loses its preponderance in mental operations, its leading place is taken by Willing. At first, work is done because the feeling of interest gives sufficient external stimulus. As external stimulus diminishes, internal stimulus must take its place, and, when it is absent entirely, an effort of will must do voluntarily all that was done involuntarily under the influence of the external interest. Thus the instinctive and involuntary attention paid by the child to the teacher when showing an attractive picture is, later, voluntary and conscious attention paid by an effort of will to the teacher during an uninteresting lesson.

With young children we *must* be interesting; with older children we must be as interesting as we can, because it is through Interest that Observation is aroused and developed, and Observation is the beginning of education.

Facts are materials for observation, for the forming of Concepts, and for exercising the Reason, not for mind-feeding.

The "teacher" who once said to his class in the hearing of the writer, "I can only tell you that it is so, and I can't supply you with brains to enable you to see *why*," did not understand the first fundamental principles of his profession, and was unworthy to belong to it. Probably the only conceivable value about the particular fact in question was "the reason why," and the only useful purpose it could serve was as a subject for observation leading to thought, reasoning, deduction, and discovery on the part of the boy under the direction and guidance, by suggestive questioning, of the teacher.

Thus, the younger the children the more important is this phase of mental education, and the more essential that the Observation which is to be trained shall be evoked and concentrated

by Interest. One of the most important attributes of the successful teacher is the fact that he is *interesting*, whether with young children or college students. Other things being equal, the interesting teacher will achieve far more with pupils of all ages than the teacher who is not interesting. But in the beginning, before the child has painfully acquired the art of paying Voluntary Attention, it is absolutely *essential* that all lessons be made so interesting and that Curiosity be so aroused, that Involuntary Attention is paid by all.

Young Indian children are so naturally curious and inquisitive, so easily interested, and generally so ill-provided with toys, pictures, books, and other objects for their handling and investigation, that the most resourceless, unenterprising and unimaginative teacher can surely find some device for arousing that Curiosity and Interest which breed Attention (without which nothing can be done) if he chooses to take the trouble.

In all Mental Education then, the definite aim and object of the teacher should be to make observation by the child natural and inevitable through attractive presentment, to lead to reasoning about what has been observed by skilful questioning, and to impress the conclusion arrived at upon the memory when necessary or desirable by repetition or one of the "fixing" devices.

And it must be remembered that we can "observe" in five different ways. We can observe that a substance *tastes* sweet or sour, that a noise *sounds* musical or unmusical, that a surface *feels* rough or smooth, that a flower *smells* strongly or faintly, and that a design *looks* beautiful or hideous. *A young child has seen most of what it knows*, has heard a good deal, and has felt a portion, while a few of its items of knowledge have been acquired by smelling and tasting. It has no personal experience and knowledge in its mind that has not come there by one or more of these senses, and the first step in Mental Education is their training and development in order that they may be appealed to with the maximum of response thereafter. For we must teach *through the senses*, and not let a child merely hear, but also see and touch, and when possible, taste and smell.

The training of the senses is the business of the mother and

infant-school or kindergarten mistress; and the continual appeal to the senses and endeavour to teach through the senses is the work of the teacher.

In no lesson should we ever appeal to, and teach through, *less than two* of the senses. We can always employ both the eye and the ear, we can frequently employ the sense of touch, and when possible we must employ the senses of taste and smell.

In the Reading lesson children see words and hear their sounds. They should also see pictures and handle objects when possible. In the History lesson they should see maps and pictures and hear the teacher. In the Geography lesson they should see models, maps, and pictures, handle specimens, and hear the teacher. In the Arithmetic *teaching* lessons, if not in the practice and revision lessons, they should see and handle objects (coins, beads, strips of paper, etc.) as well as seeing figures and hearing the teacher. In no lesson, not even the recitation lesson, should children hear without seeing (in print and picture). Far better to see without hearing than to hear without seeing. A History or Geography "lesson" without map, picture, model, book, or blackboard is of course no lesson at all but a lecture, and, as such, fit only for adults.

Since five senses are fixed as the maximum we can use for teaching, let us fix two as our minimum, three as our endeavour, and five as our ideal (attainable, generally, only in the invaluable Object Lesson).

For we want the child's mind to be like an efficient business house with its various departments equally active and capable, and not a mere go-down or storehouse where useless knowledge lies like unsaleable goods. We want a purchasing or acquiring department; a sorting, critical, appraising department; and a storing department, the whole making an energetic, enterprising, and flourishing concern.

Or, to change the metaphor, we want the child's mind to be like a flowing, crystal river, and not like a stagnant, muddy pond into which we flop pebbles of useless knowledge to sink to the bottom and lie there helpless and worthless. We want a river fed by many tributaries, growing gradually, and flowing steadily on through the cities of Learning to the sea of Culture.

And what is the proper place of examination in Mental Education? The question is dealt with in another chapter, but we

may note here that if we regard the mind as that which observes, reasons, and remembers, we cannot expect to test and measure its progress in development by testing only the memory function. For it is this function which examinations almost invariably and inevitably do test. Nor, having done this, should we assume that because the memory is developing, therefore the Observation and Reason are doing likewise.

CHAPTER III.
MORAL EDUCATION.

"The road by *precept* is long; by *example* it is short and sure."—*Seneca*.

"Education is the formation of character."—*Raymont*.

"A handful of good life is worth a bushel of learning."—*Herbart*.

"The crowning excellence of all education is nobility of character."—*Johannot*.

"Education is for behaviour, and *habits* are the stuff of which it consists."—*James*.

"Any chance that the offence may be overlooked is a temptation to the committal of it."—*Fowler*.

"Example is more powerful than precept, but Sympathy is more powerful than either, or both combined."—*Stowe*.

"Whoever desires that Intellect may grow up to healthy vigour must begin with moral discipline."—*Channing*.

"Morality is nothing but a result of the development of the first sentiments of love and gratitude felt by the infant."—*Pestalozzi*.

"Education is not teaching children to know what they do not know, but to behave as they do not behave."—*Ruskin*.

"The business of the trainer of children is to mould them for right action by creating in them good habits."—*Abbot*.

"When a child's heart has been touched the consequences will be great for his development and entire moral character."—*Pestalozzi*.

"Character is a completely fashioned will, and a will is an *aggregate of tendencies to act in a firm and definite way* upon all the emergencies of life."—*Mill*.

"Children cannot be taught by maxims which continually slip from their memory. Whatever we believe they must do, we should strengthen them in doing by unwearied practice whenever the opportunity offers, and, if possible, create opportunities therefor."—*Radestock*.

CHAPTER III.

MORAL EDUCATION.

"The mainspring of Character is Motive."—*Search.*

"Character is more important than Intellect."—*Herbart.*

THIS aspect of the education of the Indian child is at once the most important and neglected, the most difficult and least studied, of all. And it is in this department of education that the sins of examination are blackest, and the results of its baneful influence most apparent. It is surely unnecessary to labour the point of the vast importance of moral education, the essentiality of a strong and good moral result from *all* education, the fact that character comes before intellect, and that what a man *is*, comes before what he *knows*? And yet one can hardly be sure that it is unnecessary when boys go daily to so many schools for no other treatment than to sit for five hours and be filled with facts, to merely *learn* year after year; to receive nothing but *knowledge*, and then to go away and forget it.

How can one possibly expect the Indian youth, not to be a model of deportment in, but to have any idea of, the practical virtues; good form, manners and style; respectful self-respecting behaviour; or quiet manliness with manhood, as a result of a daily cramming of the memory? As well expect a parrot to compose original verse by virtue of being taught to repeat nursery jingles; or a boat to float on an even keel after the bow has been heavily laden with stones.

It is hardly fair and just to train a boy's memory for several years (that he may pass an examination set by an incompetent memory-tester), and then to blame him because his neglected intelligence and character are precisely what they might be expected to be,

Nor is the teacher to blame save in so far as he multiplies, on his own account, the already too numerous examinations, and prepares boys to pass the others by sheer weight of memory, and a vast *répertoire* of facts which it is hoped will contain those asked by the examiner.

The chief blame lies between those who are responsible for the creation of *superfluous* examinations, and those who seek examinerships and, in their ignorance and incompetence, set questions only to be answered from memory.

Some measure of blame lies upon parents and the public generally for demanding examination results instead of demanding healthy, intelligent, honest children; and those educationists are not altogether blameless, who, knowing well that instruction, "learning," and cram, are not education, have not lifted up their voices to condemn them, but have, on the other hand, praised the makers of examination-list records, and the cruel crammers of young children for their own glorification and emolument.

It would be amusing if it were not too sadly serious, to find the same newspaper demanding more subjects, more examinations, more results—in short more injurious time-wasting—on one occasion, and on another loudly bewailing the decay of ability, manners, and morals, in the "rising generation".

No boy was ever yet better in intellect or character for fact-cramming, and no Indian boy appears to get anything else at the hands of the average untrained Indian teacher. And too often the trained Indian teacher, who knows better, says: "Why should I spare time and thought for physical and moral training and lose places on the examination list? Why should I waste time in letting boys observe, reason, and arrive at a conclusion themselves, when it is so much quicker for me to give them the conclusion ready-made, and time is so precious with the examination so near? What marks will *they* get and what credit shall *I* get from examiner or inspector if I try to make them honourable and steadfast in character; sturdy and healthy in body; original, independent, and reflective in mind?"

He knows well enough that this is not education, but, being

human, he takes the line of least resistance, and gives what is asked of him, examinees. Here and there one finds real teachers, honourable men who realize their responsibility to their charges, and do their best to *educate* them morally, intellectually, and physically. Their scholars do brilliantly at those few examinations which are held by examiners who examine intelligence, ability, thought, and originality. It is when they meet the man who asks for volumes of useless facts and masses of worthless information that they fail. They delight those experienced inspectors who go to schools to observe methods, to examine teachers and not children, to hear lessons, to test alertness, intelligence, and observation, to look for signs of active educational life, healthy tone, interest, and progress. They are the despair of such young and ignorant assistants as go to frighten and worry children, exclude the teacher from the room, and demand facts and facts and more facts in all the subjects studied. However, the days of the untrained, inexperienced and ignorant examiner are numbered, and so are those of the superfluous examination. When they have gone the way of all antiquated and exploded fallacies, the teacher will have no excuse for not educating character and intellect and body, instead of memory alone.

Herbart says that "the whole work of education may be summed up in the concept Morality," and while the loading of the memory with information cannot benefit the character, all genuine mental education undoubtedly does.

When the approaching examination no longer paralyses, hampers, restricts, and yet goads the teacher, and he can teach with absolutely no other thought or object than the training and developing of the child, moral education will be part and parcel of (1) mental education. And this must be augmented and aided by (2) the example of the teacher, by (3) strict and firm discipline, by (4) the healthy muscular training of the body, and by (5) organized games.

It is doubtful whether these five means of moral education can be beneficially supplemented by definite moral lessons. In the light of the memory of their own schooldays, of their knowledge of boy-nature, and of their personal experience, most practical

schoolmasters feel that the giving of moral lessons even by the most earnest and honest men is, at best, a waste of time.

Morality with children must be a matter of *practice*. By means of the first of the five above-mentioned methods, namely, *scientific mental education in the class-room*, moral education is furthered by the training received in the practical virtues of diligence, accuracy, care, and perseverance, and by the formation of the observant, reflective, judicious, and balanced habit of mind.

By means of the second, *the example of the teacher*, moral education is furthered in the imitation by the class, and the pupils' acquirement of his habits of courtesy, punctiliousness, quiet good form, personal smartness, justice, gentleness, and conscientious work. It is impossible for boys to be in intimate daily contact for a year, or years, with a master, without being profoundly influenced by his example.

Children are wonderful imitators and enviable hero-worshippers, and teachers should have it constantly in mind that their manners, words, actions, and style; their views, attitudes, and opinions; their standards of conduct and ideals of life, are not of themselves alone and for themselves alone, but are consciously and unconsciously accepted and imitated by hundreds of children—and they should act accordingly.

The third great factor in moral development is *discipline*, and it is here that the Indian teacher, as well as the Indian parent, is so frequently culpable, through his mistaken notion of what is "kind".

It is *not* kindness to forgive wrong-doing and remit punishment, so that the boy, both in school-life and in after-life, takes into consideration the chance of escaping punishment when meditating evil—or rather so that he meditates evil because he has been brought up to count upon the chance of evading punishment.

The "kind" teacher does the erring schoolboy a cruel wrong, and shirks his bounden duty, when he weakly listens to prayers for forgiveness—prayers probably concocted before the commission of the fault in readiness for use upon detection. The firm teacher who punishes justly, adequately, and immediately, does the boy the greatest kindness, and performs his plain duty.

If a child learns nothing else at school, it should learn that for moral, physical, and social offences there are inevitable, adequate, and appropriate moral, physical, and social punishments; and that when he leaves school he will find that neither the Gods, Nature, nor Society will listen to voluble excuses and explanations, but will punish all offences against moral, physical, and social law, swiftly and severely. Every kind of right-doing and the avoidance of every kind of wrong-doing should become *habits* through discipline.

The best way of inculcating the virtue of punctuality is not to preach about it, but to punish unpunctuality sharply and always. The best way to make children honest, clean, truthful, or diligent is not to preach about these virtues but to punish sharply, appropriately, and inevitably all dishonesty, uncleanness, untruthfulness, or laziness. If children *know* that highly unpleasant punishment is bound to follow upon wrong-doing, they carefully avoid it, the tendency towards it is atrophied, and the virtues become habits.

The teacher who says "he has not the heart to punish" should not have the heart to follow a profession for which he is unfitted, and if he is too "kind" to do his duty he should relinquish it altogether. If he professes to educate children in mind, body, and character, and to fit them for life and the world, he should not bring them up in the experience and belief that punishment for sin is a haphazard sort of thing which may, or may not, overtake them. It is better that a boy should be punished by his teacher than by a magistrate, better that he be detained in the schoolroom than in a gaol, better that he receive corporal punishment in a headmaster's office than capital punishment on a gallows.

The fourth method of moral improvement is *muscular education*, the developing and strengthening of the body into the physical health which predisposes to moral health. As the boy finds his muscles increasing in size and power, and begins to take an interest and pride in his body, he receives a bias against those habits and modes of life which are calculated to weaken the body. He likes to be "in condition" to go into training, to make his fine body finer and stronger, and he eschews gluttony (in eating and drinking),

smoking, loafing, and impurity. And again the evil tendencies are atrophied and die away.

The last, and perhaps most efficacious, practical, and real means of moral education is *the organized game*. The class-room cannot possibly offer any scope for the actual practice of the virtues evoked, trained, and crystallized into habits, in the playing-fields.

Rightly understood, and rightly used, the adjective "sporting" is one implying high praise; and to call a man or a boy a "sportsman" is to say that he is just, open, honest, fair, courageous, unselfish, obedient, skilful, cool, and manly. *And one cannot become a sportsman by sitting in a class-room.* No teacher should be indifferent to the games played by his boys whatever his age or physical condition, and if he can play one or more of them, and systematically train the class in them, so much the better. Doubtless the day will come when football is considered to be quite as important a means of training boys for life as history and geography, and when the teacher who cannot teach and train in cricket and football will be as little likely to find employment as the one who cannot teach and train in reading and writing. For the physical and moral qualities and virtues developed by the mimic warfare of the playing-ground are precisely those needed in the stern warfare of life, and will stand men in better stead than the knowledge of many textbook-facts.

The question of "religious" teaching and the giving of "moral" lessons in Indian State schools is a vexed and difficult one, and this is hardly the place to discuss it. Suffice it to say that if ever it be decreed that the various religions of India be taught in the schools of the State, or "moral" lessons be put on the time-table, everything will depend upon the teacher.

"The grand secret (worth all the others together, and without which all the others are worth nothing and less) for inculcating and teaching virtues and graces is, that a man honestly, and with more and more of silent sincerity, have them himself, lodged there in the silent deeps of his being; they will not fail to shine through, and be not only visible, but undeniable in whatever he is led to say or to do, and every hour of the day he will, consciously and unconsciously, find good means of teaching them. The business of teaching, I am sorrowfully aware, is often undertaken without this indispensable pre-

requisite ; nay, in general, there is a dim notion abroad that a man can teach such things by merely wishing to do it, and without having them himself ; but the fatal result inevitably is, he teaches, can teach, nothing but hypocrisy and unblessed apery and mendacity. It is a kind of salvation to his pupils if they, in a dim way, see through him, and refuse to imbibe the slow poison of such teaching."—*Carlyle*.

If he be earnest, impressive, and eloquent, he *may* do some good ; if he be perfunctory, indifferent, and uninterested he will do great harm. And we have no guarantee, we have not even reason to suppose, that the most brilliant moral theorist, whether boy or teacher, whether giver or hearer of moral lessons, is moral in *practice*. And in no case can it be truer than in this that "an ounce of practice is worth a ton of theory".

That the right man imbued with the right spirit can do something is borne testimony to in the case of Dr. Arnold, but such men as he are not common either in England or India. One of his scholars wrote in after-life :—

"And then came that great event in his, as in every Rugby boy's life of that day—the first sermon from Dr. Arnold. . . . What was it that seized and held these three hundred boys, dragging them out of themselves, willing or unwilling, for twenty minutes on Sunday afternoons ? . . . What was it that moved and held us—reckless, childish boys, who feared the Doctor with all our hearts, and very little besides in heaven or earth ? . . . We couldn't enter into half that we heard ; . . . but we listened, as all boys in their better moods will listen, to a man who we felt to be with all his heart and soul and strength, striving against whatever was mean and unmanly, and unrighteous in our little world. It was not the cold clear voice of one giving advice and warning from serene heights to those who were struggling and sinning below, but the warm living voice of one who was fighting for us and by our sides, and calling on us to help him and ourselves and one another. . . . He shewed them—by every word he spoke in the pulpit, and by his whole daily life—how that battle was to be fought ; and stood there before them *their fellow-soldier* and the captain of their band. The true sort of captain, too, for a boy's army, who had no misgivings, and gave no uncertain word of command, and, let who would yield or make truce, would fight the fight out (so every boy felt) to the last gasp and the last drop of blood. . . . This won his way to the hearts of the great mass of those on whom he left his mark, and made them believe first in him, and then in his Master."—"Tom Brown's School Days."

And this rather goes to confirm one in the belief that almost all has been said on the subject of Moral Education when it is said

that *everything depends on the teacher*, and that if he is what he ought to be, the matter may be safely entrusted to him, while if he is not, no amount of moral textbooks or moral lessons will do the slightest good.

There are schools in India in which one hour a week is definitely devoted to Moral Education, and the means of such education is left to the teacher's own discretion or indiscretion.

In some such schools the teacher reads stories having an obvious moral, and in others the teachers deliver sermons and exhortations. As was said before this may do good, given the right man with the right spirit—*that is, the man whose life and conduct exhibit the virtues he extols, and who means and believes every word he says, and who can say those words with impressive eloquence*—but it is probable that in this country an hour of that sort would be best devoted to lessons bearing on social reform.

The Indian boy undoubtedly enjoys a sermon and enjoys listening to an eloquent speaker. He forms a responsive and enthusiastic audience in such a case, but whether he will not go straight away and do the things inveighed against is another matter. A course of lessons showing the physical, moral, and intellectual evils attendant upon degrading social customs, such as child-marriage, female repression, cruelty to widows, and so forth, leading to a course on the ideal social condition, and so to a course of Civics, given without exaggeration and with an obvious moral and conclusion, would probably do more good. Particularly so if the teacher (and here again we come back to the beginning and the end of the matter—the *teacher*) is an earnest and honest man, bent on showing that the gods and everybody else help those that help themselves, and that the only "salvation" that comes to a country comes when it works out its own salvation; that reform comes from within, and that the great reform India needs is her own social reform, wrought with her own hands.

CHAPTER IV.
PHYSICAL EDUCATION.

"Physiology ought to constitute the basis of all Educational plans."
—*Combe*.

"If we wish to develop the whole human being we must exercise the whole human being."—*Froebel*.

"All the play and diversions of children should be directed towards good and useful habits."—*Froebel*.

"It is the sound constitution of the body that makes the operations of the mind easy and certain."—*Rousseau*.

"Not only must we form the minds of our pupils to virtue, we must also bend their bodies to it."—*Pascal*.

"The lessons that boys get from each other in the playing-fields are a hundred times more useful to them than the lessons given in school."
—*Rousseau*.

"The soul of a child in his play should be trained to that sort of excellence in which, when he grows to manhood, he will have to be perfected."—*Plato*.

"Play is a sacred thing, a Divine ordinance, for developing in the child a harmonious and healthy organism, and preparing that organism for the commencement of the work of life."—*Sir Joshua Fitch*.

"It is by the equal and continuous development of every part of the body that the battle of life will be fought with success, and if one part develops at the expense of another, or by its more rapid development puts a bar to the progress of the others, the subject of it is at a disadvantage in his future struggles."—*Dr. Carr*.

"Pluck, endurance, fairness, good-temper, and energy are the results of school games; the learning to give way to others, to be useful, unselfish, courteous, to be genial, to take the rough and tumble of the world as it comes—to bear the burdens of others—the playing for your own side, and not for your own bat, and the training in responsibility that comes from a position in the school."—*Archdeacon Wilson*.

CHAPTER IV.

PHYSICAL EDUCATION.

"Early education must deal directly with the *physical* development, and influence the spiritual development through the exercise of the senses."—*Froebel*.

"Every man is a rascal when he is sick."—*Dr. Johnson*.

A VERY serious but true indictment of the Indian teacher is contained in the statement that he knows little, and cares less, about the education of the bodies of his charges. This lamentable fact may in some measure be due to the ancient belief that the perfect development of the intellect was only to be attained at the expense of the body, and that as the latter was subdued, enfeebled, and degraded, so the former was glorified, strengthened, and developed. Without going into any discussion of the relative worthiness of mind and body, it may be taken for granted by practical educationists that the Roman teachers who told their disciples that the healthy mind might be expected in the healthy body, and the Greek philosophers who told their followers that the beautiful soul inhabited the beautiful form, were better trainers of the young than the holy men of the East who told their chelas that breadth of intellect, nobility of character, and general "merit" were easier of attainment to him who was filthy, emaciated, and physically degenerated.

It may, of course, be argued that there are higher things than health, strength, and practical success in life, through honest work. It may be argued that the ash-smeared mendicant sitting in the dust in profound meditation, and little else, is a more inspiring sight and a nobler, higher creature than an engineer engaged upon the irrigation of a district, a physician alleviating pain, a judge dispensing justice, a husbandman tilling the soil, or a builder erecting hospitals, schools, and railway-stations.

These arguments may be right or they may be wrong. *The teacher is not concerned with them.* He is not a spiritual guide nor a spiritual misleader. He is not a metaphysician nor a casuist. He is not concerned with philosophy nor with theories of life. He *is* concerned with the development and training of the mental, moral, and physical powers of children. His duty is to make them as morally perfect, physically perfect, and mentally perfect as lies in his power. And he has no right or authority to consider that any one of the three aspects of education (mental, moral, and physical) is more important or essential than any other.

If he took it upon him to do so he would probably go least astray by considering that education of character is more important than education of mind, or education of body. He would be wrong, however, though not nearly so far wrong as he now is in regarding mental education as the only form of education worthy of his attention.

Montaigne has said, "It is not a soul, it is not a body that we are training up, but a man, and we ought not to divide him". By this Montaigne meant that we ought not to take *a part* of him and educate that (as is done by teachers who "educate" the mind alone, or worse, by those who "educate" the memory alone). Also, that genuine education of body, character, or mind, cannot benefit one of these alone, as they interact and are interdependent. Montaigne did not mean that we must not regard education as three-fold. Exactly the reverse. It is a *man* we are to make and not an examinee, and we must understand the making of his body as well as the making of his mind and character.

"Physical Education" is a wide term and embraces not only muscular development, organized games, and school hygiene, but such technical education as is directed to the training of the hand and eye (solely for their *education*, and not with any industrial and vocational intent).

Before he is competent to undertake scientific muscular education, the teacher must make a study of the principal external muscles of the body, their functions, and method of exercise (*vide* Appendix II). He must also realize the essential principle of the

influence of mind on muscle, and the fact that the will has as much influence in muscular development as the actual mechanical motion. Exercise of any sort benefits the body in a general way, but for definite muscular development each muscle (or pair of similar muscles) must be taken by itself and a particular exercise performed for that particular muscle with a conscious concentration of the will upon that muscle. A complete scheme will be found in detail in Appendix II.

The teacher must be very careful, however, to avoid doing considerable harm where he intends doing good. He must not, for example, expect from the Indian boy what is laid down as reasonable for British soldiers. Strain and fatigue must be avoided at all costs, and for this reason it is far better to attempt muscular education, for the first year at least, without dumb-bells, Indian clubs, or any kind of apparatus. The same scheme may be repeated year after year with dumb-bells of annually increasing weight, commencing with those of one pound. The adoption of a scheme of exercises which includes every external muscle of the body, and its systematic application, is infinitely better than the ordinary plan of assembling the class in the compound to attempt feats beyond the strength of the boys, which do more harm to those who succeed than to those who fail. There are very few Indian schools in which the weekly gymnastic lesson does the slightest good to anybody. The spending of an hour during which the gymnastic teacher performs a feat on the horizontal bar and then lifts each of the boys over it, is mere folly. The whole class should be simultaneously employed. Each exercise should have the definite object of benefiting a definite muscle, and all the muscles in the body should be taken in definite order. Each lesson should be divided into two parts, in the first of which a new muscle should be exercised, and in the second of which all the muscles previously pointed out and exercised should be again exercised—in revision as it were. This muscular education is far better done daily for ten or fifteen minutes than weekly for an hour.

All schoolboys should know their muscles and their uses, should be encouraged to develop them, and be taught that "the pride of a young man is in his strength". Boys brought up to be intimate

with their muscles and proud of them, are far more likely, on leaving school, to spend their evenings at cricket, tennis, hockey, or in the gymnasium or swimming-bath, than in bazaar-loafing, smoking cigarettes in doubtful company, retailing idle scandal, or falling victims to the wiles of the rascally "agitator". Neither the over-oiled, over-scented, over-dressed, offensive youth of *any* nationality, who has renounced the virtues of his own race for the vices of another, nor the lad who is a heavy bloated sensualist at eighteen, is ever an athlete. Had he had more physical (and less memory) education, he would not be what he is.

There is great mental and moral benefit to be derived from health and strength of body, for the mind is clearer and more active when the body is healthy, and physical health predisposes to moral health. Moreover in the act as well as in the result lies character-training, for the daily performance of what is not in itself attractive, for a good object, has a distinct moral influence.

It is undeniable, however, that important as muscular development is in Physical Education it has a lesser moral influence than that form of exercise known as "organized games". Both result in a healthy strength and pride of physique which make for morality, but the organized games are a practical exercise in practical morality of an importance and value difficult to exaggerate. And it is beyond dispute that the European games are more valuable morally than the Indian games because they require that mutual co-operation, union, obedience, and subordination of the interests of the individual to those of the team, which make the organized game so essential a feature of an all-round education.

The boy who is properly taught football when he first goes to school, and plays it until he leaves college, not only has great pleasure, and physical and mental recreation from the complete change of occupation, but a regular training in the manly virtues which goes far to crystallize them into habits. He learns to keep his temper, to keep cool, to be cheerful and hopeful under defeat (not a distinctively Indian virtue), to obey his captain, to observe the rules, to be unselfish, hardy, courageous, cool, self-reliant, enterprising, and, in short, to be fair, honourable, and manly.

And these virtues can be "learnt" *in no other way*. The reading and hearing of them in the class-room will do absolutely nothing to induce them. They are evoked, developed, trained and ingrained, in the playing-fields, and this was what Wellington meant when he said that Waterloo was won on the playing-fields of Eton.

The best organized games (in order of *moral* and physical value), are polo, rugby football, association football, hockey, water-polo, and cricket. Tennis, as played by Indian schoolboys, has little physical and less moral value.

The playing of inter-school matches and the competing for cups do considerable good, provided a proper sporting spirit prevails, and that every boy would rather see his school lose the cup than win it unfairly. At present, many cup competitions in India do more harm than good, as evil passions are aroused (among the non-combatants of course), and the apparent conception is that the sole end and object is the cup (to be won by a combination of play and swindling) instead of the promotion of healthy and manly sport.

It is frequently proposed that certain competitions be abolished altogether, and certainly their abolition would be better than their continuation as object-lessons in intrigue, foul-play, trickery, and inter-racial jealousy and ill-feeling. It would at the same time be a great disgrace to those concerned in the education of the boys that the latter could not meet together to see their respective representatives compete, and honestly hope that the best team might win. It is noteworthy, as a proof of the moral training of organized games, that it is not amongst the players that envy, hatred, malice, and all uncharitableness is found, but amongst the spectators who do not play.

When Physical Education is properly recognized and undertaken there will be none of these spectators who never play, as all will receive a proper physical training, both in muscular development and in organized games. At present, many schools have a reputation for not neglecting this branch of education founded solely upon the fact that out of several hundreds of boys a couple of dozen play football or cricket. To keep a kind of gladiatorial team is neither creditable to the school nor beneficial to any but

the gladiators. Standard I should understand cricket and football as well, and play it as frequently, as Standard VII. A match between two teams of Standard I, or between Standards I and II, should be as important as one in which the oldest players are concerned. The school team should be the eleven best players among the many teams of all the standards. And for all who are not physically incapable, attendance at the organized games should be just as compulsory as at the drill lesson, or at the class lesson on any other subject. Physical education is as important as Moral or Mental education and is undertaken with the same object—the training of powers and faculties towards the making of the perfect man.

Parents, unfortunately, as well as teachers, have been largely deluded into the pernicious belief that examination-passing is education, and occasionally object to their children “wasting their time” at games. In other words some do not appear to want a strong and healthy son with a solid and reliable character and an active and capable mind—but any sort of weak and feeble characterless creature who can contrive to get a piece of paper certifying that he has crammed a certain amount of useless knowledge of History, Geography, Mathematics, Science, Second Language and English.

The proper attitude of the genuine teacher who is proud of his profession is : “If your son attends my class I shall *educate* him in mind, body, and character. Probably he will pass his examination. If he does not, a fine man is better than a fine certificate.”

CHAPTER V.
THE TEACHER.

"His magic was not far to seek,
He was so human."

"The teacher is the artificer of mind and noble life."—*Thring*.

"Manner will accomplish even more than method."—*Payne*.

"What the teacher cares for the boys tend to care for."—*Sidgwick*.

"For instruction, and still more for Education, the great force is the Teacher."—*Payne*.

"They have *the most virtuous* for preceptors, who intervene useful fables in their discourses and relate the actions of gods and illustrious men."—*Strabo*.

"The teacher should learn to govern himself, without which he cannot properly govern others."—*Francke*.

"He whose speech and manner proclaim him to be a schoolmaster is not yet a perfect adept in his art."—*Sir Joshua Fitch*.

"The teacher should be an example in person and conduct of what he requires of his pupils."—*Comenius*.

"No matter what means of culture may be chosen, whether physical or philological, success must ever mainly depend upon the amount of life, love, and earnestness which the *teacher* himself brings with him to his vocation."—*Tyndall*.

"Personality is of the highest importance, if the teacher possesses the qualities necessary for true Education. But even the best natural gifts can be still further developed and improved by systematic reflection and study of the Theory of Education and its value in practice."—*Rein*.

"No words can exaggerate the importance of the first rule to be laid down for the teacher. The observance of it would revolutionize the whole world of tuition. It is so simple that few observe it. So simple that those who want talk, and will do anything, and undergo anything, rather than think and act, will scorn to observe it. Many boys, who all their lives long know nothing because of early tangle, would know. What then is this talisman? ARTICULATION. Nothing more than a rigid, absolute, unfailing exacting of articulate speech, and the pronouncing the final syllable of each word firmly, distinctly, and unmistakably."—*Thring*.

CHAPTER V.

THE TEACHER.

"God mouldeth some for a Schoolmaster's life."—*Thomas Fuller.*

"All teachers should go through a course of training."—*Mulcaster.*

If what has been written in the foregoing pages on the theory of mental, moral, and physical education is true, it follows that the teacher is not merely the fountain of facts, the walking encyclopædia, and the universal provider of useful and useless information to the young ; but their guide, philosopher, and friend, the skilled builder of their characters, trainer of their bodies, and developer of their intellects.

Before he can be this he must thoroughly understand children and be a practical psychologist, physiologist, and moralist. To a natural bent, adaptation, and inclination, he must add a careful study and a long experience before he can become worthy of the name of teacher. If he has no decided liking for, and sympathy with, boys, he had better not attempt to make teaching his life's work, both for his own sake and for the sake of those for whose training he will be responsible. To succeed, he will need further to be possessed of an inexhaustible fund of patience, an attractive and interesting personality, tact, an enduring sense of humour, ready-wittedness, versatility, originality, insight, cheerfulness, an infinite capacity for taking pains, an abiding hopefulness, dignity, decision, irreproachable character, keenness of observation, courtesy, smartness of person and of manner, evenness of temper, acuteness of sight and hearing, energy and perseverance, self-respect and self-reliance, health and strength, and an unyielding firmness tempered by kindness.

The would-be teacher reading this may say : "*In short, he must*

be a model man !" Precisely. For is he not to be the model for hundreds and hundreds of boys? Who should be a model of all the mental, moral, and physical virtues, if not the person who is to inculcate and train them? Of what value will his precepts be if his example does not bear them out? When a man takes it upon him to become a teacher, he takes it upon him to become a model for his boys to imitate, and a pattern for them to mould themselves upon.

He must be able to inspire in his scholars a love and devotion, mingled with a certain small degree of fear and awe, and a great respect. His frown should be a punishment and his smile a reward. It must be well known that the velvet glove hides the hand of steel, and that while he prefers to give a fatherly friendliness, he is fully prepared to give severe punishment if necessary.

He must be careful to display in himself all that he demands from his scholars. It is useless for him to preach punctuality and come late, to preach courtesy and treat boys with less politeness than he treats inspectors, to preach gentleness and be rough, to preach straight dealing and promise what he does not perform, to preach industry and be lazy. And all teachers do well to bear in mind that there are no critics so keen and sharp-eyed, no assessors of character so mercilessly just, no observers of the ways of others so undeceivable as children. In this respect they appear to combine the intelligence of human beings with the unerring instinct of animals. No man can be so clever a fraud, and so astute a humbug as to hoodwink children, and hence no bad man can be a good teacher.

To turn to the details of the teacher's daily life in the class-room, it is to be noted that the Indian teacher frequently makes two or three mistakes well worthy of attention and correction. One which has serious effects upon his own health and the discipline of his class is his habit of *shouting*.

It is comparatively rarely that one meets with the Indian teacher who teaches in the lowest tone of voice that is clearly audible in his class-room. Not only does this strain and tire his voice, weaken his throat, and waste his energy, but it leaves him powerless to be impressive when he wishes to be specially impressive, or

to raise his voice in rebuke. A sudden raising of an habitually quiet voice has considerable effect in drawing attention to an important utterance, or in calling a backslider to order. Moreover, the continual bawl is wearying and objectionable to the class, and an annoyance to neighbouring colleagues. Whenever possible, teachers should undergo a course of study in the art of voice-production, and when this is impossible should always aim at the quietest, and not at the loudest, tone feasible in the class-room. Boys can talk, shuffle, and make considerable noise, and still hear the shouter quite distinctly ; they are compelled to be still and silent to hear the quiet teacher, and the teacher is in a position to say to any boys who have not heard him: "Had you been perfectly quiet and still you would have heard me, and I shall repeat nothing". *It is fitter that boys should be silent to hear the teacher than that the teacher should be noisy to be heard by the boys.*

Incidentally it may be observed that the less talking the teacher does, the more thinking the boys do, and that the voices of boys (answering questions) should be heard in the class-room quite as much as the voice of the teacher. A teacher is not a lecturer.

Another error to which some Indian teachers are prone is carelessness in dress and indifference to personal appearance. There is no earthly reason why a teacher should affect a European or semi-European style of clothing, but there is every reason why he should be neat, clean, and tidy. The worst paid teacher has no excuse for slovenliness and dirtiness, and in India, of all countries, it is easy for the teacher to "keep up appearances". It is as true to-day as it was when Shakespeare wrote it (and as true in India as in England) that one's "habit" should be as costly as one's purse can conveniently buy, since the apparel frequently proclaims the man. Dirty clothes, a greasy cap, uncleaned boots, and an unshaven chin, accord ill with the high position or the fine precepts of the teacher, nor can their owner very well object to a similar condition of clothing in the case of a pupil.

Neatness, tidiness, and cleanness, are the outward and visible signs of a similar condition of character, and neither superiors, equals, nor subordinates can help being favourably or unfavourably prejudiced by their presence or their absence respectively.

A third matter in which many teachers need a little care is that of their physical attitude and position in the class-room. A slovenly and lounging attitude of body predisposes to a corresponding attitude of mind. The teacher should spend much more time out of his chair than in it, and, when standing, should *stand* and not loll against the table. For a teacher to sit on a chair cross-legged or with both feet on the seat of it, to lean back and rest his book upon his knees and his head against the wall when teaching is, in effect, to say to his class: I am lazy, and you can be the same if you like". If he expects a brisk alertness on the part of his boys he must exhibit it himself. It is as important for the teacher to stand well or sit well, as it is for him to talk well or dress well.

Nor must the conscientious teacher suppose that his duties begin at ten o'clock and end at one o'clock in the morning session, and begin at two and end at five in the afternoon session. It is incumbent upon him to have some knowledge of, and take some interest in, his boys outside the class-room walls. It is impossible that the class-room shall be the sole arena of his struggles against bad mental, moral, and physical habits, and the sole scene of his labours in the development and perfection of all mental, moral, and physical faculties. He has his place in the compound as much as he has his place in the class-room, and many of his extra-mural duties are among the most important that it is his business to perform. Nor does his connexion with, and responsibility towards, the boy cease when the latter leaves the school precincts. It is most desirable that he should know the parent or guardian of every boy in his class and keep in touch with him, with a view to obtaining the stronger hold and influence over the boy, and enabling himself to increase the latter's distaste for punishments (and desire for commendations) of which the parent or guardian is sure to hear. It is sometimes a source of great discomfort and apprehension to the backslider for the teacher to remark: "I must bring this to your father's notice".

On the other hand the teacher must not allow his friendship with the parent to bias his judgment or corrupt his honesty at the time of the annual promotions. If a boy has proved himself unfit

for the standard in which he is, how can he be fit for a higher one? If he is to be removed at all it should be to the class below, with a promise of reinstatement when he gets to the top of that class. When a teacher knows that a boy is utterly unfit for promotion, and the parent urges promotion, it is his duty to stand between the boy and a cruel wrong. Parents frequently implore teachers to "pity the poor boy" and be merciful. They *should* have pity upon him and be sufficiently merciful to recommend his being put *down*. It is a most injurious thing for the boy, for the class, for its teacher, and for the school, when boys are unduly and improperly promoted to a higher class when not even fit for the class in which they are.

In short the conscientious schoolmaster, both in the class-room and outside of it, must aim and strive to be an organizer, a governor, and a *teacher*, a guide, philosopher, and friend, the fountain of discipline and development, and not a destroyer armed with facts.

And to all these physical and moral qualities he must add both general and special mental qualities. He must be a man of wide and varied reading, well educated himself in the best sense of the word, and abreast of current literature, topics, and discoveries. Still more must he have a thorough and exhaustive knowledge of what to teach, how to teach it, and why it is to be taught. He must have a vivid power of imagination himself, and the descriptive ability to give mental pictures of his imaginings to others. He must be a conversationalist and a skilled teller of stories.

He must regard his work as an art and himself as an artist, and in order to continually improve and progress in his art he must study its science, and endeavour to hasten his own slow and dear-bought experience by accepting the recorded experience of others. He must remember that though the real teacher is "born" he is also "made," and that though we may be born with ability we are never born with experience. He must study the theory of his profession and endeavour to carry it out in practice; for it is nearly as bad, though not quite, to be a "teacher" who has slowly arrived at some knowledge of his profession empirically and at a great

cost in time, opportunity, and children's welfare, as it is to be one who is greatly learned in theory, a distinguished holder of pedagogic examination diplomas, and quite unable to teach.

We are none of us perfect teachers, but we can all strive to eradicate those personal weaknesses, failings, and drawbacks which militate against our perfection and success.

The hasty-tempered man, for example, can endeavour to overcome his proneness to unjust or excessive punishment, by making it a rule to always punish on the day following the commission of the offence, instead of doing it immediately. We can "know ourselves," and we can improve ourselves. We can also compare our actual methods of teaching the various subjects and of governing our boys with the methods recommended in works upon the theory of education, and see where, and how far, the real falls short of the ideal. We can do our best (and no man can do more) to be to our boys what we ought to be to them, since we have aspired, presumed, and dared, to become their trainers.

CHAPTER VI.
THE SCHOLAR.

"A fine character will satisfy all the theories as to the ends of life: a mere intellectual prodigy will satisfy none."—*Bray*.

"They who would teach children well, must first learn a great deal from them."—*Callander*.

"A child loves and believes before he thinks and acts."—*Pestalozzi*.

"A child is a *doer* and a *creator*."—*Froebel*.

"Children are always best governed through their affections."—*Smiles*.

"The child feels in him life enough to animate all his surroundings."—*Rousseau*.

"Childhood has its own ways of seeing, feeling, and thinking."—*Rousseau*.

"Bring up your boys without constraint in their studies, and in a playful manner."—*Plato*.

"Breeches-wear and brain-wear are not the same thing, though the same time may be spent."—*Thring*.

"Beat a child if he dance not well and cherish if he learn not well, and ye shall have him unwilling to go to the dance and glad to go to his books!"—*Roger Ascham*.

"The main interest in the teacher's life is to be found in studying and developing the infinitely various mental and moral qualities of his pupils. True success consists in making children as unlike as possible."—*Eliot*.

"The only safety lies in the study of, and better adaptation to, the nature and needs of childhood. Strength lies in individualization. Progress is now in differentiation."—*Hall*.

CHAPTER VI.

THE SCHOLAR.

"Learning should come to children as flying to birds, swimming to fish, and running to animals."—*Comenius*.

"*Help* the child and make study more pleasant than play and pastime."—*Port Royalists*.

"Individuality is everywhere to be spared and respected as the root of everything good."—*Richter*.

THE Indian student has been very badly treated, in that he has been cast in a faulty mould and blamed because he fits it. For centuries his intellect was trained at the expense of his character and body, and he was accused of being more clever than honest and virile. After examinations were invented, multiplied, respected, and then worshipped, his memory alone was trained at the expense of the rest of his intellect, his character, and his body. He was then accused of being more capable of learning a thing by heart than of understanding or applying it, or of dealing honourably and living vigorously.

If this were true the disgrace of it would lie upon his teachers.

The Indian boy is given to us to make into an honest, intelligent, and healthy man, and we cannot do it by telling him irrelevant facts and then examining him in them.

While we continue to multiply examinations and prepare the boy for them; to point to the successfully crammed examinee as a glorious production rather than to the capable, honest, healthy youth; to crown the crammer and award the *trainer* the damnation of faint praise—it is a little unfair to blame the boy for being what we have made him, and for not being what we have never tried to make him. If we concentrate on his memory, is he himself to evolve some means from his inner consciousness and apply it to the development of his character, intelligence, and physique?

The average Indian boy as he first comes to school is excellent raw material. His mental powers compare favourably with those of any boy in the world, and if they are developed instead of being stunted, atrophied, or perverted, are capable of attaining a high standard. His physical powers are good, and if judiciously developed by specific muscular education and by organized games, will stand him in good stead for the allotted span. His moral powers need special skilled attention, watchful care, and strengthening by development, to withstand the powerful evil influences of ruinous social custom, demoralizing climate, and heredity. And knowing this, we teach him stupid facts and examine him in them, by way of making a strong man of him—strong in character, body, and intellect!

The crammer has a heavy charge to answer when it is said to him: "You received a child of great mental, physical, and moral possibilities, that you might lead him to their realization. He had the makings of a fine man in him. He could have been made a man of active intelligence, original, enterprising, and thoughtful; a man of steadfast character, honest, earnest, and sincere; a man of healthy body, muscular, active, and vigorous. What *have* you made of him? An examinee! And to be an examinee he needed no character, no physique, and a minimum of originality, thought-power, and intelligence."

It is high time that we paused, put on the spectacles of common-sense, and peered around to try and see the real thing, the *child*, among the false things, the examinations, the facts, the results, the subjects, and the other rubbish with which we have encumbered the earth. We should try to see, and some day we shall see, in the mellow light of reason, that we must begin with the child, keep on with the child, and end with the child. He is not intended for the food of devouring monsters called examinations, curricula, systems, passes, and paper diplomas. They should never be allowed to grow into monsters at all, but should be kept what they were first intended to be, the child's humble, subservient, and useful friends.

It is no exaggeration to say that where the average teacher stops to give him a thought at all, he thinks of the child as the thing which passes or fails at examinations, instead of thinking of him as the great central fact in connexion with which examinations, systems,

and subjects are to be employed when, and in so far as, they help in his development.

Teachers only exist for children, examiners only exist for children, all the impedimenta and apparatus of education only exist for children. Let us not forget it, and think that the child exists for them.

When the teacher takes over a new class of boys he should not regard them as sheep for the examinational slaughter, as grist for his educational mill, or as pots to be filled by his instructional ladle, but as human beings, differing in character, temperament, ability, and nature, each of whom he must study, know, and understand. Nor must the child be made to regard his teacher as his natural enemy, the curtailer of his activity, the harsh driver, the unsympathetic tyrant, and the fountain of uncomprehended fact, of undeserved punishment and of unreturnable insult.

There is nothing easier in the world than to win the love and admiration of children, and, as Pestalozzi has said, "Love is the first agent in education, and the essential principle of education is not teaching, it is love".

We have a proverb: "No man is a hero to his valet," and we might have one: "Every teacher is a hero to his pupils," and in those cases in which it was not true, the more shame to the teacher. Given a good man who understands and loves his work, and you have a being who, to the children he teaches, is a marvel of learning, a saint in virtue, a giant in strength, and a hero in consequence. To the small boy to whom he is just and kind he is something to boast about, and more, he is something to *imitate*, and therein lies the beauty of the child and the responsibility of the teacher.

And though it is perhaps more a question for the head master, and a matter of school organization rather than of class management, it is of the first importance that every scholar shall be in the class that he is fittest to be in.

"The basis of gradation must be the placing of the child where he can get the greatest good to himself—*where he can be the happiest*. If a child from necessity enters school late, or if he must be absent a day or a week, a month or a term, his loss should never be disproportionate. He has a right to expect that the school shall fit his individual needs, associate him with those who can help him most, and permit him to advance as naturally as grow the trees of the forest. *There should be no time element*. He should be permitted to accomplish as he may be individually capable."—*Preston Search*,

More individualism is one of our crying needs, more study of each child and more differentiation of treatment in the light of the results of that study.

Although it may not be in the power of the class teacher to see that a boy who is obviously a misfit shall go to the class "where he can get the greatest good to himself," it should be quite within his ability to temper the wind to the shorn lamb, to encourage him along the lines of his private tastes, inclinations, and bent; to give him special help where he is specially weak; and to do much to mitigate the necessary evils of systematic and routine Collectivism, by aiming at the maintenance of the maximum of Individualism.

Collectivism is a necessity; Individualism is a duty.

"We were not taught in classes in ancient Japan. The grouping of soul-possessing human beings into classes, as sheep on Australian farms, was not known in our schools of old. Our teachers believed instinctively, that man cannot be classified, that he must be dealt with personally, face to face, and soul to soul. So they schooled us one by one, each according to his idiosyncrasies, physical, mental, and spiritual. They knew each one of us by his name. And as asses were never harnessed with horses, there was little danger of the latter being beaten down into stupidity, or the former driven into early graves."—*Uchimura*.

They are taught in classes in modern Japan owing to the exigencies of finance, but it is still recognised as the teacher's first duty, to know each scholar, his bent, ability, weakness, and his needs, and to give him the treatment indicated by these; to *teach* collectively, and to guide to *study* individually, to temper the drawbacks of the inevitable Collectivism with the benefits of the essential Individualism.

And never should the teacher drive and revile the unfortunate boy who is in the class he does not fit.

"It is the effort that deserves praise, not the success. Nor is it a question for any student whether he is cleverer than others or duller, but whether he has done the best he could with the gifts he had."—*Ruskin*.

The measure of the teacher's opportunity is largely his knowledge of the scholar, and the measure of his worth is his treatment of the scholar in the light of that knowledge.

CHAPTER VII.
THE CLASS-ROOM.

"School houses should be made comfortable and attractive."—*Comenius*.

"Dirt is generally accompanied by an inclination towards crime."
—*Spencer*.

"The educational effect of good premises is undoubted. A simple dignified building is calculated to make the scholars proud of their school and to exercise a constant and impressive influence in the neighbourhood concerning the ideals of Education."—*Bray*.

"The teacher creates his own school. To him who hears the true artist's call to Education, the small dull space in which he at first feels himself confined, soon becomes so bright and large that he discovers the whole of Education therein, with all its motives and needs—the satisfaction of which is truly a work immeasurable."—*Herbart*.

"It ought to be made an important portion of the weekly work of every school to take the children into the country to breathe its balm, grow strong in its healthy breezes, see and enjoy its beauties, and receive there that glorious training of sense and soul, head and heart, possible only beneath the blue vault of heaven. In truth the country should become an outer uncovered *class-room*—a Divine museum utilized by our teachers."—*Ruskin*.

CHAPTER VII.

THE CLASS-ROOM.

"If we wish to lift children into an atmosphere of ethics, we must start on the basis that every exercise of the school is potential in opportunity for higher living and higher realization. Education is the evolution of the ego in response to environment."—*Preston Search*.

THE Indian class-room is not commonly an attractive place. When not dirty, insanitary, unventilated, and horrible, it is generally bare, dull, and dreary. The teacher is not usually responsible for the former state of affairs, but he is for the latter. Occasionally one comes across a class-room which has a "character," the reflection of the enterprising, original, and versatile temperament of its occupant.

When the visitor goes through a series of prison-cell-like, bare, and cheerless rooms into one whereof the walls are covered with specimens of the handiwork of boys and teacher, photographs, picture-postcards, or coloured pictures from illustrated papers; wherein there are plants and flowers for decorative purposes, living specimens for Nature Study, a boys' museum, and models made or moulded by the boys—he realizes that he has passed through the rooms of the uninterested or ignorant hirelings to that of the genuine teacher who has a conscious aim, and a living interest in his work and his children.

Our class-rooms should be not only as wholesome, well-ventilated, bright, and cool as architects can make them, but as cheerful, beautiful, interesting, attractive, and homely as the teachers can make them. The further they vary from the prison cell and the more they approximate to the well-furnished, refined home, the better for the children and the more creditable to the teacher.

No one expects the under-paid Indian teacher to spend his money in furnishing his class-room. Money is not needed. A little trouble and ingenuity, and much interest and enthusiasm are required. The bare and dirty walls can be hidden beneath

the drawings, maps, colour-work, or specimen written-work of the boys. This not only serves to furnish the room, but gives encouragement and reward to those whose work is thus exhibited. Very many coloured advertisements can be had for the asking, and these again not only serve to cover the walls but to teach geography and to illustrate object-lessons. The keeping of silk-worms, caterpillars, tadpoles, etc., or the growing of plants and cereals from seeds, serve to furnish the room with boxes, cases, bottles, jars, and tanks; to teach Science, and to arouse interest in Nature Study. The standing of shrubs in corners, and of vases of flowers on tables and window-sills, serves to make the room brighter, pleasanter, and more cheerful, and to give an elementary æsthetic training. Brightly coloured flowers, paper, and pottery are greatly appreciated by children, because they satisfy a kind of *colour-hunger* which is particularly keen in the Indian child.

Besides being as well furnished and adorned as is possible under the circumstances, the class-room should be treated as the sacred temple of Learning and the children taught to regard it as the place for quiet and decorous behaviour, to be entered for lessons only, to be treated with respect and reverence. Let boys make all the noise they like, and display all the activity they can, in the playground, but do not allow them to regard the class-room as the place in which they can rush about and yell, throw things around, or strew banana-skins and mango stones. Except under special circumstances, it is a good plan to exclude boys entirely from the class-room during non-working hours, or to grant permission to sit in it as a special privilege to the monitor or top boy only.

The condition and treatment of the class-room have an undoubted influence upon what is called class "tone" and so upon the moral, as well as the æsthetic, training of the scholar.

Although the class teacher, as a rule, has no responsibility for the type of desk used, he has for their position with regard to the light and air, and to himself and the blackboard. The desks should be so placed that the light falls sideways from the left and from above, and so that the boys are not facing it; so that they are between doors or windows, and in the current of air; so that

the boys can see the blackboard without straining the eyes; and so that the teacher can see the whole class from his dais. The system of lining three of the walls with desks while the teacher sits in the middle of the fourth, is a common one and a *bad* one. A much better system is that of arranging all the desks in rows, facing the teacher, and with aisles for ingress and egress. Placed thus, the scholars feel themselves more immediately under the teacher's eye, and are not tempted to various misdeeds as they are when so arranged that one boy can screen himself behind another. The position necessitated by turning sideways to the teacher is, moreover, an injurious one; and when groups of boys are facing in three different directions the light cannot be right for all.

In some Indian class-rooms the pernicious and disgraceful system of seating boys on backless benches with no desk attachment prevails, and, year after year, boys sit with curved spine, contracted chest, and unsupported back, while they write on a book balanced on the knee, or sit huddled up as they listen to the teacher. They would be far better on the floor. The person who invented this type of school seat is probably dead and gone to his own place, but the evil that he did lives after him.

The teacher is not responsible for its installation or continuance in his room, save in the not unknown case where, the vile bench having been cast forth and the reversible desk introduced, he has reversed the desk and kept it reversed, and used the new furniture precisely as the old was used. I have more than once seen boys sitting doubled up and scrawling in notebooks held on their knees, while, touching their backs, were the patent sloped desks (provided with ink-pot holes and book-and-pencil rests and all that heart could desire) reversed and useless! A very sad and significant sight. Such desks are only made reversible that they may upon occasion be used as seats at school-assemblies, etc. Perhaps this type of class-management is the cause of the feeble, illegible scribble which is the "writing" of the average candidate for matriculation at the Indian Universities. Certainly the individual responsible for keeping boys in the injurious, unnatural, and physically ruinous position all day long for years together, in places where they are supposed to be physically *trained and developed*, has something to answer for. Fancy giving a boy curvature of the spine, contraction of the chest, roundness of the shoulders, compression of the abdomen and shortness of sight for five hours a day and balancing it with half an hour's slack drill once a week by way of physical education! Before commencing his mental development in the class-room, let the teacher see that he has done everything in his power to assure, or at least not to retard, his physical development.

A much too common feature of the Indian class-room is the ink-stain. There is nothing gained, and a good deal lost, by having the marks of ink-puddles on the floor, and innumerable blots on the desks and walls. It is as easy to shake superfluous ink off the pen into the ink-well as to shake it anywhere else, and it is one of the duties of the teacher to give a training in tidiness, cleanliness, and carefulness, by prohibiting the throwing of the superfluous drops on the floor and furniture, irrespective of questions of economy. It is quite common to see a boy take a dip and give a jerk, take a dip and give a jerk, continually and unvaryingly while writing for half an hour, until he has far more ink lying on his desk or whatever other place he has favoured, than he has *used* in a week. Where the teacher finds this habit prevalent he should indicate the dirtiness and wastefulness of the trick, prohibit it, and hasten the cure by permitting those who still throw it to carefully clean up the mess. In the case of a very confirmed thrower, the throwing of a little on his own private property might be a pointed argument in favour of obedience, and a punishment fitting the crime. Where a *hamal* or *pattiwallah* is careless in the filling of ink-wells it is well to put a high price upon the spilt fluid.

Although the matter is rarely one in which the teacher is responsible, we might note that each child should have about ten square feet of accommodation, and that no class-room should be less than about eighteen by fifteen feet, nor any one class contain more than thirty children.

PART II.
THE PRACTICE OF EDUCATION.

“The business of the educator is not to make the young perfect in any one of the sciences, but to open and dispose their minds as may best make them capable of any work when they shall apply themselves to it.”—*Locke*.

“The phenomena of Intelligence conform to laws. The evolution of intelligence in a child conforms to laws. Education cannot be rightly guided without a knowledge of those laws. Hardly any parents and but few teachers know anything about Psychology. The right class of facts is often withheld, the wrong class is often forcibly administered in the wrong way and in the wrong order.”—*Spencer*.

SECTION I.
GENERAL PRACTICE.

“Method is the master's master.”—*Talleyrand*.

“Every *method* has some good in it; no method is all good.”—*Voltaire*.

“It is not so much in the remodelling of curricula as in the improvement of *methods* that educational progress must consist.”—*Royal Commissioners on Education*.

CHAPTER VIII.

CLASS MANAGEMENT, DISCIPLINE AND TEACHING.

"Do not govern too much."—*Richter*.

"Discipline must be based on, and controlled by, *love*."—*Pestalozzi*.

"Spasmodic government is weak government."—*Locke*.

"The great safeguard for good and happy discipline in a school is to fill the time with work."—*Sir Joshua Fitch*.

"That quietness of manner that comes not from feebleness but from restraint and collectedness, passing easily into energy when required, is a valuable adjunct to discipline."—*Bain*.

"No intellectual work can be done till the senses have supplied the material."—*Sully*.

"All education must be based on the learner's own observation."—*Pestalozzi*.

"Mentioning a fact is not teaching it."—*Landon*.

"Learn by *doing*."—*Froebel*.

"Instruction must be based on the learner's own experience."—*Pestalozzi*.

"Proceed from the known to the unknown."—*Spencer*.

"The concrete should precede the abstract."—*Comenius*.

"Rules should be learned inductively."—*Landon*.

"To be wearisome is the cardinal sin of instruction."—*Herbart*.

"Self-teaching is the best teaching."—*Jacotot*.

"Everything according to Nature."—*Basedow*.

"All the faculties should be equally exercised, and exercised in a way consistent with the exigencies of active life."—*Marcell*.

CHAPTER VIII.

CLASS MANAGEMENT, DISCIPLINE AND TEACHING.

"Alas! for that kind of activity which makes us impatient for the end, instead of rejoicing by the way."—*Goethe*.

THE first essential of good class management and good teaching is good DISCIPLINE. However clever and original a teacher may be, he cannot be called a good teacher if he is not a good disciplinarian. Whatever remarkable examination results a school may obtain, it cannot be called a good school if its discipline is not good. For in the first place discipline is a mental, moral, and physical training in itself, and in the second place, quiet, steady work of any kind is impossible without discipline.

Discipline depends upon the teacher; upon his personality, his character, and his system.

The Indian boy is, generally speaking, perfectly amenable to discipline so far as mere good behaviour and subordination are concerned. Where there is actual misconduct and riotousness in the Indian class-room, the teacher is a weakling beneath professional contempt.

It is in such points as general smartness of style, in precision and silence of class movement, in punctuality and exactness, and in orderliness of sitting, standing, and marching that Indian discipline is sometimes wanting.

It may be objected that we don't want any German-drill-sergeant system of painful rigidity, smothering all spontaneity and activity. We don't. Nor do we want any careless, slipshod, anyhow, more-or-less system of class discipline, encouraging a precisely similar mental and moral looseness and flabbiness of habit.

It is useless to teach absolute accuracy and exactness through mathematics, and at the same time to teach careless inaccuracy and inexactness through sloppy discipline.

The results of good smart discipline are good order, good habits, good work, and good training; obedience, diligence, and self-respect; love of lawfulness, and *success*.

Nor must it be supposed that good discipline is only to be acquired by the institution of an intricate system of rewards and punishments. Probably there would be neither in the ideal and perfect school.

Given a moderately commanding personality in the teacher—that of the average, decent, serious, and self-respecting man—and good character, his system need take but little count of rewards and punishments, which are at best but positive and negative bribes, and which savour more of instruction in fact than of education of faculty.

What it does need to regard is the fact that boys who are *at work* are in a state of discipline, and that the spirits of evil will always find evil work for idle hands to do. Continual employment is the best safeguard against wrongdoing of every sort and kind.

Also that whatever order he may give at any time and for any purpose, should be obeyed absolutely instantaneously, simultaneously, and silently. His rules and his orders must be few, simple, definite, and well understood, and their infringement or neglect must be met with appropriate and inevitable punishment, delivered without anger or vengefulness, in an impersonal and judicial manner. There is no reason why a class of boys should not be as well-disciplined, well-drilled, smart, prompt and finished in style as a regiment of soldiers. Without insisting upon any precise and exact position and attitude for hands, feet, heads, and eyes, as boys sit in class, the teacher can insist upon an instantaneous springing to “attention” on the word of command, or simultaneous and silent standing up or sitting down to the word of command, and upon a definite and right method instead of an indefinite and wrong one.

It is very easy, and by no means uncommon, to under-rate the importance of this class-room orderliness, precision, and smartness.

Class Management, Discipline and Teaching. 71

It is less easy to over-rate it as a means of moral training through the formation of habits of promptitude and exactness.

In securing good discipline the teacher must also rely upon the natural desire of children to please superiors, and to emulate one another, on their love of personal activity, their natural curiosity, their desire for praise, and their dislike of censure or rebuke. Desire for rewards and fear of punishments are motives of a lower order, and should be appealed to as little as possible, or not at all.

Very frequently, and very unfortunately, school rewards of a concrete nature do not go by merit but by ability, and it often happens that the much less deserving, but cleverer, boy wins the prize which would have been far more justly given to the more attentive, hard-working, and worthy boy who is merely not as clever. Children see and know this, and it is not a good object-lesson in justice, fairness, and morality. A boy who is born clever has received a sufficiently valuable prize in the fact alone, without having further prizes heaped upon him for his virtue in possessing the original prize. Similarly many school punishments often fall upon a boy for being naturally dull and stupid. He sinks to the tail end of the class, does bad paper work, fails in examinations, has a bad time generally, and perhaps suffers detention or corporal punishment for his non-success. He, too, dimly realizes the injustice and unfairness of having punishment heaped upon him for being the recipient of the original heavy punishment of being born dull and stupid. If rewards are given at all, let them be given for effort rather than for the result of effort, and certainly never for mere natural cleverness. When punishments are given for bad work, let them be given for lack of effort and never for natural stupidity.

In any case it is far better for a class-room to have an atmosphere of work for work's sake and not for hope of reward or fear of punishment. The capable and wise teacher can easily instil the creed: "I am here for my own good, my own improvement, and development; by laziness I sustain personal loss, and I am now making or marring my own future". The creation of this attitude combined with an endeavour to make all work so interesting as to be attractive, has better results than the too common one of

"Cram this and I will give you a book perhaps. Neglect it and I will hit you certainly," combined with an endeavour to discharge the heaviest volley of facts in the shortest time.

The best kind of reward is that which has no intrinsic value, such as a special seat in the class-room, a place on the honours-board, a badge, or public praise. The very highest and most coveted decoration attainable in the British army is the Victoria Cross. It is made of bronze and is worth about two annas. This principle of reward is highly applicable in the class-room, if rewards are to be given at all.

Apart from the matter of bad work, which may, or may not, be a boy's best work, is that of isolated cases of actual wrongdoing and their method of punishment. We may here entirely set aside the question of corporal punishment, as the class master has nothing to do with it. He is not entrusted with the power of corporal punishment at present, and if he inflicts it he does wrong, and the boys know he has done wrong, and their respect for him is lessened. He is precisely in the position of any other person who commits a common assault upon a boy. The subject is one with which head masters alone are concerned, and the present writer deals with it elsewhere.¹

Should a boy commit an offence which, in the opinion of the class master, is deserving of corporal punishment, he should lay the case before the head master and leave him to deal with it. Other kinds of punishment he should inflict when necessary—which will be very rarely if he be a good teacher. Punishments serve a double purpose, they reform the offender and they warn others against committing the offence. They should be moderate, appropriate, inevitable, and entirely free from any appearance of being a *revenge*. They should make the culprit feel degraded and ashamed, they should never be given for any fault that is not due to deliberate wilfulness or gross carelessness, they should be greater in unpleasantness than the fruits of the offence are in pleasantness, and they should fit the crime in kind and in magnitude. As in all other questions of education, everything depends upon the teacher,

¹ "Indian School Organisation," by P. Wren (Longmans, Green & Co.).

and a sharp word from one man will be a more severe punishment than a sharp blow from another.

Indian boys are exceedingly sensitive to ridicule and sarcasm, and these weapons may be effectively adopted in the case of the foolish, sullen, conceited or idle boy, before sterner measures are resorted to.

An admirable system is that of making the other boys the instruments of punishment by building up a healthy and active public opinion, and making certain kinds of wrongdoing offences against the standards, reputation, and traditions of the class.

A more interesting and valuable study, however, than the punishment of wrongdoing is that of its *prevention*. Punishment for wrongdoing which the teacher could have prevented, with a little thought and care, should rightly fall upon him rather than upon the actual culprit, and it does involve him, in a sense, for the teacher who has a reputation for much punishing has also a reputation for being a bad disciplinarian among those who understand.

Wrongdoing in school can be prevented, as said before, by keeping children constantly employed, and by allowing no boy the opportunity to say: "I have finished, I have nothing to do". Let it be a standing order that anyone who at any time has nothing *else* to do (because he has finished his sum, etc., before the others) is to be carrying on with some stated task, such as completing a map kept in stock for this purpose, continuing a drawing or essay, or, better still (as it savours of enjoyment of well-earned recreation), reading an interesting and illustrated book from the library. It should be in the nature of an offence in itself to have "nothing to do". Children dislike rest and loathe inactivity. Their natural activity *must* find an outlet, and if it does not find it in work it will find it in mischief, play, or wrongdoing.

The writer had a close personal acquaintance with an Indian school in which there were at one time upwards of a hundred Parsi boys among several hundred of different races, Hindoos, Mahomedans, Jews, etc. The Parsis, he was informed, were notoriously mischievous in and out of the school precincts, and given to roaming the streets and doing that which they ought

not to do. This was found to be quite true, and the blame lay, of course, not with them, but with the teachers and guardians who did not provide a legitimate outlet for their activity and enterprise. These same boys, who were said to disgrace the school by mischief, soon proved the mainstay of its reputation when their superfluous energies and activities were compelled in the direction of football, cricket, swimming, athletics, and a cadet-corps. It rests with the teacher as to whether the healthy activity of the child shall express itself in work, sports, or mischief. And it is almost better that it shall be in this last than that it shall suffer *repression*, for, frequently, the mischievous active boy develops into the enterprising, inventive, and energetic man.

The removal of the temptation to do wrong is another obvious means of lessening the need for punishment. "The sight of means to do ill deeds makes ill deeds done." Boys cannot, for example, damage school furniture, stop the clock, or throw ink about during recess hours, if they are excluded from the class-room (as they should be, except for lessons). The boy who is prone to idleness and inattention has no opportunity for backsliding if he is given a place immediately under the master's eye. The habitual talker cannot talk in class if he is isolated. A regular and careful scrutiny of exercises, copy-books, and homework, leaves no opportunity for protracted carelessness or shirking. The locking-up of chalk prevents the temptation to seize it and scribble on the walls. Instances may be multiplied indefinitely of the ways in which the careful teacher can demonstrate his appreciation of the fact that in respect of schoolboy crime, "prevention is better than cure".

The likelihood of wrongdoing is also lessened by the cultivation of the friendliest and most sympathetic relations with the children. If each boy feels that he is the particular friend of the teacher and that the latter is interested in him, understands him, and likes him, there is little probability of his wishing to offend, annoy, or grieve.

This friendship, however, must never be allowed to interfere with duty, or degenerate into a maudlin feeling that punishment for deliberate wrongdoing must be remitted for fear of straining

relations. Nor must anything in the nature of favouritism appear. If a monitor be appointed in a class he should be appointed for merit and nothing else. For a teacher to show partiality in any way is to destroy all faith in his justice and fairness, and to undermine his own authority. Indian boys are just as quick to feel and resent injustice as are other boys, and Indian teachers are perhaps just as prone as any others to have "favourites," and to show partiality for reasons entirely unconnected with school.

It is also to be remembered that "a stitch in time saves nine," that a mild rebuke to-day may save a sharp one to-morrow, or a severe punishment next week. Any signs of a tendency to go astray should be immediately noted and acted upon.

One very disgusting and rather common means resorted to for the maintenance of discipline is the encouragement of tale-bearing. It is a matter of common knowledge that Indian boys who have quarrelled do not care to settle the quarrel by personal combat, but occasionally endeavour to injure each other secretly and by underhand means—whereof a common one is this tale-bearing. It might be argued that if a boy comes to a teacher with a breast burning with righteous zeal in the public cause, and indignation against wrongdoing in the abstract, his noble hatred of evil should be commended and encouraged, and his information acted upon. So it should. But he doesn't. He comes with a mean and sneakish desire to get another boy into trouble, and he should be profoundly discouraged. To make the punishment fit the offence, it is not a bad plan to inflict the punishment due for the alleged crime upon the tale-bearer who discloses it. A more strenuous, but equally effectual method, is to set the informer to corporally punish the accused when the accused happens to be the bigger boy.

The tale-bearer who is a mere combination of sneak and liar must, however, be distinguished from the complainant of a serious and actual wrong done to himself, and from the duly appointed prefect or monitor who is made responsible for discipline in the absence of the teacher.

The prefect system in Indian schools is excellent when it is good and the very worst when it is bad. It may serve as an

excellent training both for the prefects and the rest, and it may be a training in oppression, truckling, and villainy.

It needs most careful institution, full explanation to all concerned, and constant watching and unobtrusive supervision. In the first place the prefects should be few in number and of the best *character*. Character is the first thing. Where there is a top class of fifty to a hundred boys it is absurd to make them all prefects. A good plan is to have the school captain, vice-captain, the captains of evelens and the top boy as ex-officio prefects, and half a dozen others elected by ballot by the whole school from a number selected and nominated by the Head-master and staff. These prefects should then have certain definite duties and certain definite powers allotted to them, and their authority should be supported and magnified by all the teachers. There should be no jealousy of them on the part of the junior class-masters, as the prefect's duties and authority arise solely in the absence of the staff.

It should be known with certainty throughout the school that punishments awarded by prefects for refusal to obey their orders will be just as inevitable and serious as those inflicted by teachers; also that any boy is at liberty to appeal to his teacher against the sentence of a school prefect and that if he is in the wrong his punishment will be doubled, while if he is in the right it will be remitted, and the prefect degraded from his rank.

It is the bounden duty of all teachers, in the interest of their boys, the head master, and themselves, to do their utmost to make the system a success if it is instituted in their schools. The system is described in detail for the benefit of Head-masters elsewhere.¹

The second essential of good class management and good teaching is definite METHOD. There are many right ways and many wrong ways of doing things in school, and the teacher should select that one of the right ways which he likes best (because it suits him best and he can do it best) study it, perfect it, and follow

¹ "Indian School Organisation," by P. Wren (Longmans, Green & Co.).

it. Without definite Method school work is nearly as chaotic as it is without Discipline.

There are certain broad essential principles which are fundamental, and which only vary slightly in application whether the subject taught is Chemistry or Caligraphy, Mathematics or Music, Sanskrit or Spelling. They should be thoroughly grasped and understood as general principles, and then be again thoroughly grasped and understood in their particular application to the various subjects of the curriculum. Provided these great guiding roads to education are followed, it does not greatly matter as to what means of locomotion is adopted ; provided these great fundamental bases are used as foundations, the details of the style of educational architecture are immaterial ; provided these are the staple of the educational diet the mode of cooking is unimportant.

Broadly and briefly stated, they are as follows :—¹

1. TEACH THROUGH THE SENSES.
2. PROCEED FROM OBSERVATION TO REASONING, AND THENCE TO MEMORY.
3. TELL THE PUPIL AS LITTLE AS POSSIBLE AND LEAD HIM TO TELL YOU AS MUCH AS POSSIBLE, FROM HIS OWN OBSERVATION AND DEDUCTION.
4. LET THE PUPIL LEARN BY DOING.
5. START FROM WHAT HE KNOWS AND GO ON TO WHAT HE DOES NOT KNOW.
6. START FROM THE CONCRETE THING AND GO ON TO THE ABSTRACT IDEA.
7. TEACH INDUCTIVELY (FROM EXAMPLES TO LAWS, INDIVIDUALS TO CLASSES, PARTICULARS TO GENERALS, PRACTICAL TO THEORETICAL, SIMPLE TO COMPLEX, AND INDEFINITE TO DEFINITE).
8. MAKE ALL LESSONS INTERESTING AND ATTRACTIVE.
9. ENCOURAGE SELF-TEACHING.
10. FOLLOW NATURE, AND TRAIN EVERY FACULTY.

If the teacher will follow these ten rules and maintain good discipline there cannot be much wrong with his work. To consider them *seriatim* :—

¹ See chapter xxi.

We must TEACH THROUGH THE SENSES because the mind receives sensations or experiences or *materials* for its use by means of seeing, hearing, feeling, smelling, and tasting. (They may be called the mind's first schoolmasters, and like all other schoolmasters they need training before they can do their work. As a rule, they have been trained to some extent before the child comes to school, but they are always the better for further and systematic training in the lowest class of the infant school.)

A boy can observe the shape, size, and colour of an object by seeing it, better than any teacher can describe it. He can observe its temperature, texture, and condition of surface by feeling it, better than any teacher can describe it. By smelling a flower, a scent, a gas, or any object, he can form a better idea of its odour than any that could be given him orally. By tasting any liquid or solid he can get a more exact appreciation of its flavour than he could get by description. By actually hearing the report of a gun or the song of a bird he knows better what these things are than he could know by being told. The senses are the gateways to the mind, "the windows of the soul," and through them the mind is to be reached or illuminated.

And as many of the senses must be appealed to as possible. Sometimes, in the object-lesson, it happens that all five can be utilized, frequently four can be called into play, and generally at least three of them can be appealed to, and this is one of the many virtues of this invaluable lesson. In all lessons two, seeing and hearing, should be employed. It is wrong, for example, to have recitation taught through the ear alone, or to rely upon mere verbal description of what can be shown.

The observance of the second rule that THE PUPIL MUST BE LED TO OBSERVE FOR HIMSELF, GUIDED TO REASON, ARGUE, AND DEDUCE FROM WHAT HE HAS NOTED, AND THEN HELPED TO REMEMBER WHAT HE HAS CONCLUDED IF IT BE WORTH REMEMBERING, precludes all cram and mere non-training instruction, and ensures mental development, the seeing eye, the reflective brain, and the retentive memory.

In *all* teaching the principle of "What do you note? What do you suppose to be the reason of it? Remember it by connecting it in your mind with such-and-such a point," must be broadly fol-

lowed if pupils are to leave school trained to observe, to think, and to remember.

The third rule that THE TEACHER MUST TELL THE PUPIL AS LITTLE AS POSSIBLE is the one most commonly broken in Indian class-rooms. The Indian teacher does too much and the boys do too little. This is not to say that the Indian teacher is invariably over-industrious and energetic, or that the Indian boy is invariably lazy. It means that the teacher talks too much, tells too much, explains too much, and reduces the pupil to the level of a mere recipient. He is the leaky vessel which the bhisti can never quite *fill*, instead of being the bhisti's hard-working buffalo whom the bhisti is *guiding* to the well of learning. (We are told that it would be better for the teacher to *eat* for the pupil than to *think* for him.)

It is not the place of the teacher to tell the pupil something, but of the pupil to tell the teacher something. The matter in hand is nothing, the act of finding it out, which trains the mind, is everything.

If I throw a stone into the water, and my dog fetches it out, I do not keep the stone as something valuable. Nor does the dog. The stone can be cast aside and forgotten. It served its purpose in giving the dog exercise, and development of faculty, and ability. The same applies to the teacher, the fact, and the boy. When the fact has served its purpose of affording an opportunity for mental training and development, let it go. It is no more worth remembering than the dog's stone was worth keeping—(unless both were diamonds among facts and stones).

And when possible apply the fourth rule and LET THE PUPIL LEARN BY DOING. Those who love to overtrain the memory will find that the *act of doing* impresses the facts connected with it on the memory. Higher motives for obeying the rule are the desire to encourage, and provide for, the child's love of activity; the wish to give opportunity for self-expression; and the intention to train the hand and eye. Apart from the distinctively manual training or "occupations and employments" lessons, the principle can continually be regarded. Boys can be called out in front of the class to assist in experiments, to write on the blackboard, to illustrate an action. In every lesson in which it is possible, some-

thing should be done, made, drawn, written, or enacted, so that work may be removed as far as possible from the ordinary Indian condition (of sitting and listening on the part of the boys, and talking on the part of the teacher) to one of thinking and *doing* on the part of the boys, and supervising and guiding on the part of the teacher.

Rule five, PROCEED FROM THE KNOWN TO THE UNKNOWN, is merely a matter of common-sense and a form of the law that foundations precede walls, or that walls precede roofs, and needs little comment. Its scientific theory is dealt with in Psychology under the heading treating of the process of apperception. It is most manifestly absurd (and also most common) for a teacher to deal with a strange, new, and (to the class) difficult subject until the end of a lesson, and then to casually connect it with known matter which should have served as the spring-board for the dive into the waters of the unknown, or the rock upon which the structure of his lesson should be built.

Nor should the reason for the sixth rule, PROCEED FROM THE CONCRETE TO THE ABSTRACT, be far to seek.

Suppose I was trying to give the teacher himself an idea of an Australian animal which was a freak of Nature in the animal kingdom, and which exhibited in one creature the characteristics of a bird and a quadruped—should I do well to show him a live (or stuffed or depicted) duck-billed platypus? Or should I merely talk and talk about the idea of freaks and deviations from the ordinary biological laws and classifications? As will be shown in detail later, every kind of lesson should either begin with a concrete object, centre round a concrete object (if only a picture), or be illustrated by a concrete object. Particularly in mathematics should the rule be remembered when teaching juniors, and a number be treated as a number of *things*, and not, at first, as an abstract idea.

Rule seven, TEACH INDUCTIVELY, is justifiable because it is natural, and encourages reasoning. It is on account of the universality of a deductive type of teaching in Indian schools that the Indian student is so often found to be wanting in mental self-reliance, and prone to dependence upon the unsupported statement.

Induction proceeds by drawing attention to a large number of instances and then guiding the observer to the formation of a general law. It is analytic and enterprising. It involves development and training of faculty through exercise. It leads to discovery and invention; and it tends to make a *man*, mentally, of the student.

Deduction merely accepts a cut-and-dried law and notes that various instances verify it. It is synthetic and explanatory of accepted generalities. It involves no training. It is unreliable and leads nowhere; and tends to make the learner rely rather on what he *knows* than on what he can *do* mentally.

MAKE ALL LESSONS INTERESTING AND ATTRACTIVE is the eighth and one of the most important of these rules. A teacher has a fine initial equipment for his career if he is only interesting and a disciplinarian. The mind cannot be forced, and nothing can take the place of Interest, the child of Curiosity, and the father of Attention. Curiosity must be aroused in the subject being taught, and must be kept alive if interest is to be taken in it sufficiently to keep attention fixed.

We might pause here to note that the common expression "the subject taught" is one which, though sanctioned by usage, is a bad and misleading one, having its origin in misconception and leading to further misconception. It is not "subjects" that we teach but *children*, and we should guard against the ever-present tendency to fall into the error of considering the subject rather than the child. We hear a teacher say, "My class is weak in history but strong in mathematics". What does it matter what subjects they are weak in so long as their mental faculties are strong? They are not going to face the world with history or with mathematics, but with trained faculties. *If chess trained faculties better than algebra it could be adopted instead of algebra.* Subjects are only valuable for their effects in use by faculties. We must teach *children*, test *children*, take pride in *children*, and not teach "subjects," examine "subjects" and take pride in "subjects".

It should be a reason for withholding a diploma from a teacher, for refusing promotion to a teacher, even for dismissing a teacher, if he either will not take the trouble, or has not got the ability, to make himself interesting. And this because he is not, and cannot be, a genuine teacher.

Rule nine, ENCOURAGE SELF-TEACHING, is another which will be

found difficult of observance by the fact-grinding, memory-cramming manufacturer of stuffed examinees. What a boy or man finds out for himself is worth ten times as much as what is found out for him. That which we have discovered for ourselves once, we can discover for ourselves again at any time, and if this were not so, the fact remains that the very act of finding out for ourselves impresses the matter on our memory almost indelibly. Far more important is the truth that by finding it out we *train the faculty of finding out*; and the person with a trained faculty of finding out is better fitted for life than the one who only has a stock of things which have been found out for him. We are better off for water if we own a river than if we own a pond. Speaking paradoxically, the best teacher is he who does not teach (but guides his pupils to teach themselves).

And lastly, the teacher must FOLLOW NATURE, the great Teacher, the great Mother, and the great Guide.

Nature does not stuff, cram, distort, atrophy, or hypertrophy (and stultify herself). Neither should the teacher. The natural powers should be trained and developed in a natural manner to a natural end. The teacher must take hints from Nature and work according to Nature. Nature neither intended children for automata nor for examinees, but for perfect men and women, and it is in harmony and partnership with Nature that the teacher must work, furthering her ends and aiding her processes. In Nature we see the powers and faculties of the young animal developed by their exercise and use, and we must develop the powers and faculties of the young human animal by exercise and use, and not stuff his memory with information and call the process education, and the result an *educated* man.

There lingers in India, unfortunately, a class of teachers who have never troubled to study the theory of their profession and who speak of themselves as "belonging to the old school" (a pleasanter phrase than "suckled in a creed outworn") who affect to despise these great laws, and method in all its branches. They condemn everything scientific, psychological, and truly educational as "new-fangled," and hide an uneasy sensation of unfitness and ignorance beneath the thin cloak of a seeming bluff belief in "solid hard work and a hiding if he doesn't know it". It is difficult to speak with moderation of this type of person, whose school is a combination of prison, torture-chamber, and sweaters' workshop.

They have such shibboleths as "I am a plain, practical man," "I look for results," "Show me good examination-papers and I'll show you a good teacher" and so forth; and the parent, who is astonishingly ignorant in matters educational, says, "Hear, Hear," when he hears him gabble them, and inquires of his son what he *knows*, instead of anxiously noting what he *is*.

The implication made by these preferers of subjects to children, of pieces of paper to human beings, of the examination-room to the world (and of their own advertisement to their charges' welfare), that "solid hard work" is only to be found in the class-room of the crammer is, of course, on a par with the rest of their professed beliefs. *There is as much solid hard work for the boy (and more for the teacher) in genuine education as there is in cram, only in the former case it is solid work in training and development instead of in the amassing of perfectly useless facts.*

Scientific educational methods may be less "productive" of a stock of useless information but they are incredibly productive of *intelligence*. The "teacher" who belongs to this "school" has mistaken his vocation and would be more properly employed in teaching parrots to talk, or animals to perform unnatural tricks and antics in a cage.

The application of these rules practically involves the following of the method of teaching, known as **ELICITING**. By the process of eliciting the pupil arrives at the fact by his own mental efforts, receives mental training by the act of doing so, and, further, has the fact more deeply impressed upon his memory by the process. By the method of telling, the pupil receives a fact from the teacher and receives no mental training. The good teacher tells as little as possible and elicits as much as possible; the bad teacher tells as much as possible and elicits as little as possible. Lecturing is telling, teaching is eliciting, and lecturing should be reserved for the college student whose faculties are supposed to have been fully trained (but generally have not) at school. The teacher who proceeds by eliciting shows that he realizes that the faculty is more important than the fact, education more important than knowledge, development more important than congestion; the teacher who proceeds by telling shows that he regards the mere fact as all-important.

It is of course far more difficult to elicit a point by Socratic exposure of fallacy, and guidance through a logical series of questions to the truth, than to simply tell it. It is as much more difficult as it is beneficial. The teacher has to exhibit skill, and the pupil thought.

It is naturally slower than telling. It is as much slower as it is surer. It is essentially inductive, and cannot help proceeding from the basis of what the child knows to an understanding and knowledge of that which he did not know. And this latter point must be borne in mind. You cannot elicit what is not there, and in some cases a substratum of fact has to be given. Telling must be resorted to when eliciting is impossible, but we should tell little *that we may elicit much*. For examination purposes eliciting is an excellent method of teaching provided there is plenty of time, inasmuch as what is arrived at by one's own ingenuity and labour is retained far longer than what is given free, because the impression is deeper and more lasting. When, however, the teacher is rushing to get so much "done" in a certain time, and results are more important than children, eliciting will be found "unproductive," and much more ground can be covered by the sad method of telling and committing to memory. The results upon the mind of eliciting and telling may be respectively compared with the results upon the body of selecting natural food, masticating it, and digesting it at leisure, and with those of being hurriedly crammed with unnatural unmasticated food which cannot be digested at all.

CHAPTER IX.
TEACHING DEVICES.

"Good teaching fixes as well as presents."—*Landon*.

"Teaching should be principally by means of questions."—*Fowler*.

"Children learn less from asking, than from being asked, questions."—*Rousseau*.

"Questioning is simply developing or leading out."—*Stow*.

"Illustrations have not only illuminating-power, but fixing-power also."—*Landon*.

"Enrich your teaching with as many relevant associations as possible."—*Laurie*.

"Do what we will, the faculty chiefly exercised in preparing for examinations is the carrying-memory."—*Montaigne*.

"In these days the learner is a rarity; examinations have almost destroyed the breed."—*Armstrong*.

"If memory, rules, and neatly packed knowledge make men, up with the flag, enlist our workers under the banner of Examinations. But if Education and training are the true aim of mankind, and power in a man's self the prize of life, then no superstition ever ate into a healthy national organism more fatal than the cult of the Examiner. Better in its degree the negro bowing down before the ghastliest fetish, than the civilized Mumbo-jumboism which thinks it can award over a whole kingdom the palm of mind. Examinations in that case are but another name for death to originality, and all improvement that is original."—*Thring*.

"Notes taken in school should be very sparingly allowed; a notebook is not attention, neither is it a boy's mind."—*Thring*.

CHAPTER IX.

TEACHING DEVICES.

"Teaching means skilful questioning to force the mind to see, to arrange, to act."—*Thring*.

Of all the devices employed in teaching" (which may be defined as "causing to *think*") that of QUESTIONING is the most important. It is a great and difficult art, and upon his skill in it depends much of the teacher's success.

The use of Questioning is obedience to the laws that we must TELL AS LITTLE AS POSSIBLE, that we must ENCOURAGE SELF-TEACHING, that we must PROCEED FROM OBSERVATION TO REASONING, and that we must TEACH INDUCTIVELY.

Questioning performs a threefold function. *Questions* are of three kinds. The former finds out the extent of the previous knowledge of the subject, it directs observation and thought to the subject, and it discovers how much has been understood of the subject. The latter are of the investigating kind, the training kind, and the testing kind.

Questions may be addressed to the memory or to the intelligence (which includes observation, reasoning, judgment, imagination, etc.), and it is those which concern the latter that are so difficult, so important, and so absent from the teaching of the crammer. It is the art of framing questions *which can only be answered by an effort of the intelligence* that the Indian teacher has particular need to study.

There is no difficulty and no merit in asking a boy "How many legs has a goat?" The answer is lying ready-made in the boy's memory and he replies "Four" without mental exercise.

There is no difficulty and no merit in telling a boy that Mount

Everest is 29,000 feet high and then asking him "How high is Mount Everest?" The answer has just been supplied to him and he gives it back without mental effort.

There *is* difficulty and there *is* merit in asking a series of questions which a boy can only answer by *thinking*, and in thus leading him to a truth which he did not know, by means of his own mental efforts.

Take the following two methods of dealing with a point in Nature Study for example :—

1. *The bad method.*

Teacher. "The scales on the back of a snake are smaller and softer than those underneath the body. Why is this?"

Boy. "I don't know."

Teacher. "It is because those underneath are constantly rubbing on the ground and so need to be stouter and stronger."

Here a piece of useless information has been *given* and no mental training has resulted.

2. *The proper method* (Socratic Questioning).

Teacher. "Look at the scales on the back of this dead snake. Now look at those underneath it. What do you notice?"

Boy. "They are larger underneath."

Teacher. "I have removed some from each. What else do you notice?"

Boy. "Those from underneath are thicker and stronger."

Teacher. "Why is this so?"

Boy. "I do not know."

Teacher. "What are the soles of your boots made of?"

Boy. "Leather."

Teacher. "What is the top of your cap made of?"

Boy. "Velvet."

Teacher. "Why should not the soles of your boots be made of velvet and the top of your cap of leather?"

Boy. "Velvet would wear out immediately, under my feet, and I do not need anything so stout and heavy as leather for the top of my cap."

Teacher. "Why does the snake need stout thick scales underneath his body, and only require small soft ones on his back?"

Boy. "Because his lower scales are constantly rubbing on the ground like the soles of my boots, and he needs no such protection for his back, as it never rubs on the ground."

There the teacher told *nothing*. The boy's observation was trained and his reasoning power developed. He was taught to find out for himself, to note and to reason. The fact of the sizes of the scales was nothing, the mental training was everything. And it was done entirely by questioning. By means of the teacher's questions addressed to his reasoning-power the boy was enabled to tell that which he did not know, and was trained and encouraged in the art of finding out for himself what he does not know.

Not only must the teacher be skilful in conceiving a series of questions leading step by step to a desired final answer, but he must be skilful in framing each individual question so that it admits of only one kind of right or wrong answer. The question, "What is there all round us?" admits of hundreds of answers as well as the required one "The atmosphere". The question, "What do dogs do?" admits of an infinity of answers besides the one "They bark".

In the first place THE TEACHER MUST EXPRESS HIMSELF WITH ABSOLUTE CLEARNESS, so that the difficulties of answering are not enhanced by the difficulties of discovering exactly what the teacher wants. Particularly when teaching in English must the Indian teacher bear this in mind. His words must be simple and familiar, and carefully adapted to the English attainments of the boys. It is foolish to say to Standard IV, "Contrast these two and enumerate the instances wherein there is differentiation of detail" instead of "Put these two side by side and tell me how this one differs from that".

Secondly, QUESTIONS MUST BE ADDRESSED TO THE WHOLE CLASS and *not to each boy in turn from the top of the class to the bottom*. In about 95 per cent of Indian class-rooms this pernicious practice prevails. Naturally, the boy who has answered his question takes no further interest in the matter and retires from business. Boys at the back of the class do not take down the mental shutters and prepare for customers in the shape of questions until their turn approaches, and having answered their question rightly or wrongly, they too

retire into the private life of undisturbed lethargy. It is probably no exaggeration to say that it is more usual than not for the average boy to actually work and *think* in the course of the average oral lesson for just the few moments when it is his "turn".

There should never be any turn. Every question should be addressed to every boy. Those who can answer should raise their hands. Those who cannot should be noted, for repeated inability to do so denotes either laziness or stupidity. If it is pointed out to a boy that the continued absence of his hand when others are raised, means that he must either be punished for laziness or put down a class for inability, he receives a decided stimulus to attention and diligence. The boy who raises his hand when he has nothing to say should be dealt with sharply, once and for all, for acting a lie.

Thirdly, QUESTIONS MUST NOT CONTAIN, OR SUGGEST, THE ANSWER. There is no mental effort required to answer such a question as, "Can you possibly think that such a thing *could* be likely?" or "If a deadly poisonous serpent bit a man would he feel any ill effects?" and if no mental effort is required to answer a question, the asking of it is a mere waste of time.

Fourthly, THEY MUST NOT BE VAGUE, AMBIGUOUS, OR INDEFINITE. No effort of the intelligence can enable one to give a satisfactory and final answer to the question, "What have animals not got?" unless one happily *guesses* that the asker means a soul.

And QUESTIONS SHOULD NEVER BE SO FRAMED AS TO ENCOURAGE GUESSING. Guessing is in education what blind speculation is in commerce, and equally destructive of the virtues of reasoning and diligent carefulness. For this reason those questions that require only "Yes," and "No" for an answer are less commendable than those which require a stated reason and opinion. The question "Why" is one of the best questions that can be asked, and those beginning with "Why" are generally more conducive to thought than those beginning with "What".

It is noteworthy that Indian boys take a special delight in a teacher who can ask them something which they do not know, and by a series of subtle questions in logical sequence, lead them to the correct answer without giving them any actual information.

Doubtless rarity adds to his value. This kind of work is as much more interesting and attractive to them than the fact-grinding, as it is more valuable and formative.

It might be noted at this point that answering should receive the teacher's careful consideration as well as questioning. Not only is a correct answer wanted, but a *correctly-stated* answer. It is a great mistake to hear the first few words of a boy's answer, and while he is floundering through an incoherent statement, to say "Yes, I see you understand. That will do." It will not do. Not only must the boy understand, but he must also express what he understands in plain and simple words. If this is true with regard to the vernacular, how much more true is it, when the boy is answering in English. Not only does his actual statement of his opinion help to clarify it and arrange it logically, but, if the statement is properly made in a complete sentence, he is receiving training and having exercise in English composition.

Some teachers follow the device of having the question repeated (in the identical words of the teacher) by the answerer, before he gives his answer. Certainly the plan makes for attentiveness on the part of the boys, and gives yet more training and exercise in correct English (by the Direct Method).

While demanding accuracy, sufficiency, thoughtfulness, and correct English before accepting an answer as satisfactory, it is a mistake for the teacher to reject entirely every answer which is not correct. The answers of boys, who have honestly thought, and have come to a wrong conclusion, are quite as useful as those of boys who have taken a different line of thought and arrived at the truth. It is the *thinking* that is important, the actual conclusion is generally immaterial when reached.

The next most important of the teaching devices is that of ILLUSTRATION. The term is a wide one, and embraces all things that serve to give clear ideas, from the actual object to a mere simile (which is a verbal illustration). The use of material illustrations is obedience to the laws that we must TEACH THROUGH THE SENSES, PROCEED FROM THE CONCRETE TO THE ABSTRACT, FROM THE KNOWN TO THE UNKNOWN, PROCEED FROM OBSERVATION TO

REASONING, AND MAKE LESSONS ATTRACTIVE. We may divide illustrations into the three classes—objects, pictures, and similes. Outside the meagrely furnished object-lesson, it is a rare event in this country to find the ordinary class-lesson illustrated in any way by means of objects or pictures, or really well illustrated by similes. (It is not an unknown thing for a geography lesson to be given without a model, globe, or map, and not an unusual thing for a history lesson to be so given.)

Whenever possible, the actual object, model, or apparatus should be introduced. It teaches for itself, and of course gives an accuracy of idea and a training of the senses which no amount of description can achieve. The teacher must, however, be careful not to defeat his own ends by providing and displaying a mere counter-attraction which will prevent his gaining and keeping the attention of the class. The object should be produced, used, and then put out of sight. When it has served its purpose for concentration it should not be left in sight to serve for distraction.

The school museum should be furnished rather with a view to what will be useful in illustrating lessons than to what is merely curious and extraordinary.

When the object is not procurable, a picture should either be obtained or drawn on the blackboard. The ability to draw simple sketches quickly and clearly is a valuable part of the teacher's equipment. Every teacher should learn to draw sufficiently well to be able to illustrate such simple things, for example, as differences in the beaks of birds, the feet of animals, or the shapes of figures. A blackboard drawing is a better illustration than a picture, because its execution before the class arouses interest and attention, nothing superfluous and likely to confuse is present, size and detail are at the option of the teacher, contrasts can be emphasized by exaggeration and by the use of coloured crayons, the picture can grow with the lesson, and the children can far more easily reproduce it than in the case of the pukka picture.

In the use of both objects and pictures the teacher must be careful not to destroy all training value by merely describing them while the class sits and passively listens. The proper attitude is, "There it is, tell me what you see". When the desired point

has been raised by a scholar, the teacher suggests a train of thought and propounds a series of questions leading to the desired result.

A means of illustration of which far too little use is made in India is the magic-lantern. This apparatus has a twofold value, the greater part of which lies in the fact that it is deeply interesting and highly attractive to children, and so compels attention to the subject under consideration; while the other is due to the fact that an infinitely bigger picture can be put before the class than is possible by any other means—and, of course, the bigger the picture the better. Every school should have its lantern (fairly good ones can be procured very cheaply nowadays) and every town its "circulating library" of slides. These latter can be purchased from a common fund and kept by each school in turn for a fortnight or other fixed period. Annually, one group of linked schools can exchange its entire stock for that of another group. It is by no means always necessary to hold classes at night if the lantern is being used, as a removable chick or curtain can be made for each door and window of one class-room in many schools, and used in such a way that light is excluded without rendering either temperature or atmosphere intolerable. The architects of new schools should consider the provision of a room which can easily be made dark without being made airless or hot, and so give every opportunity for, and encouragement to, the use of this invaluable form of illustration.

When neither an object nor a picture is available, the teacher must rely upon verbal illustration, simile, analogy, and comparison. Here particularly he proceeds from the known to the unknown. He describes the appearance of the unfamiliar lobster by reference to the familiar scorpion, the volcano is likened to the squib, and a manufacturing process is compared with some ordinary domestic process.

Great religious teachers have always brought their truths home to the minds of their hearers by means of parables and anecdotes wherein the new and strange is verbally illustrated by the old and familiar. Great secular teachers are similarly given to, and fertile in, every kind of simile which will help to a clearer realization.

Dangerous edged tools in the hands of the mechanical or incompetent teacher are EXAMINATIONS, NOTES, and MARKS. Sometimes these are well and usefully employed; far more often they are blindly used and abused with results more destructive than constructive. The examination becomes the end, notebooks take the place of the intelligence, and marks become more important than what they represent.

Oral EXAMINATIONS are better than written ones, and written ones should be examinations of ability and not of memory; and the preparation for them should involve the training of the observation, reason, and imagination. But with the most competent and enlightened of examiners, the most conscientious and professional of teachers, the most intelligent and original of pupils, the fact remains which Montaigne expressed in the words, "*Do what we will, the faculty chiefly exercised in preparing for examinations is the carrying-memory*". So long as examinations hold so important a place in the Indian educational system, and so long as educational progress is tested by examinations, so long will the "carrying-memory" be the chief, if not the only, mental faculty trained and developed. This is true, and the sooner we realize it and act upon it, the better for India. As a stimulant brandy may be very useful, as a diet it is poison. As a *device* examination may be well enough, as an end it is fatal. We are mistaking an educational stimulant for an educational diet, and with such results as might be expected.

If a boy is learning something which *must* be learnt by heart, such as recitation, tables, declensions, or conjugations, he will learn it better if he knows he is going to be examined in it. If he knows that he will be examined on the subject-matter of what he is reading, or of a lesson, he will attend more carefully. But if the teacher who reads this book learns anything from it at all, he will realize that teaching and learning are two very different things, that eliciting and telling are two very different things, and that informational instruction is quite other than educational development. It is not that he may *know* things, and that we may prove he knows them by examining him, that we *educate* a boy.

It is by training and developing all his faculties that we do so, and it needs a very expert and experienced examiner to test the degree of development of all the faculties by written examination.

It would be far better for never another written examination to be held, than for teachers to come universally to regard education as the preparation of children for examinations, and for scholars to come universally to regard everything that will "pay" in the examination hall as valuable, and everything else as valueless.

Similarly (and, in part, consequently) the NOTE-BOOK has come to be a great stumbling-block in the educational path of the upper standards. Owing to the frequency with which the unfortunate boy is asked to "define" to "explain" or to "give the meaning of" in weekly, fortnightly, monthly, terminal, and annual examinations, his one idea is to "get it down" in his notebook, rightly or wrongly, and learn it by heart. Real intelligent understanding of the matter never troubles him, and rarely troubles the teacher, provided a glib synonym, definition, paraphrase, or explanation, has been recorded. Could we avert our eyes from the eternal examination and turn them to the *boy*, we should speedily realize the expediency of making him fling away his notebook, and in place of misspelt, misunderstood, mischievous scribblings of a pathetic parody of our continual talk, give him, by means of illustration and his own guided intelligence, a clear and plain understanding of his difficulties.

The filling of a three-pie exercise book with a scrawl of heterogeneous misinformation is a poor substitute for the training and development of an intelligence.

Personally I would never allow a notebook in my class-room if *teaching* children. If instructing them for examination purposes, I would allow no single note to be taken except to my careful dictation, or copied from my blackboard summary, and I would inspect and correct these notebooks. To allow a boy to sit and scribble for dear life as though he were a reporter while the teacher talks, and to allow him to write down what he likes, when he likes, and how he likes, is to parody education.

The following is an actual specimen of the pages of a notebook of a boy in Standard V of an Indian High School looked at (and then copied) by the author at the end of a "reading" lesson (in which there was no reading):—

"*Chimney* the whole where the fire goes into

Astride sitting on it

Roaring making sound

Sagacity he knew very wise

His hart stood still he got became very fitend.

Precious it cost much worth

Recieve, believe descive grieve, conceive relieve.

Mournful very sad. "he went into morning," wept. became sorrow.

quake shake he was quakeing with frite "

and so forth. Some were better and some were as bad, and no boy in the class had a page without mistakes. The teacher's plan of teaching reading was to give synonyms and explanations of most of the words individually, giving one to each boy in turn, and to talk unceasingly. The boys' plan was to scribble down as much of it as possible. A glance through the notebooks showed that the same plan was followed in all subjects, so that *the day's work consisted chiefly in filling the notebooks with bosh.*

That the boy shall *understand* is the great thing, that he shall be able to *define* is a very minor matter. (There are more people who know what a dog is than can "define" a dog.)

Get the idea into the boy's brain, don't trouble about getting it into his notebook.

MARKS may serve a very useful purpose, provided, again, they are retained as a means and not made an end in themselves, and provided they are not allowed to furnish a training in dishonesty.

It is worse than useless to give marks in hundreds for every lesson until the weekly maximum runs into lakhs, to allow the boys to keep the record of them themselves, and to accept at the end of the week a monitor's list of the class in order of merit, wherein there is probably no single correct total, and whereon the most audacious cheats hold the highest places. If marks are given at all, they should be given with sufficient rarity, restraint, and economy, for the teacher to be able to give them most carefully and to record them himself most carefully, and moreover to add them and publish them himself. Marks then become a stimulant and not a means of learning to swindle.

If we *must* have our boys in order of "merit" (which is order of

cleverness) and must publish to all and sundry that Krishna is sharp and Rama is dull, let us do it with strict accuracy and give an object-lesson in careful justice.

There is an enormous amount of time wasted over marks, their giving, their recording, their compiling, and their announcing, just as there is a deal of useless unnecessary shuffling, disturbance, and time-wasting over continual PLACE-TAKING and place-changing.

If a teacher is not happy unless his boys are in order of "merit," let him put them in this order on Monday morning and let them retain it until the following Saturday. If they are arranged according to a weekly examination or a weekly total of class marks, surely this is a sufficiently stable and reliable assessment to last for a week. There is no need to further have every lesson disturbed by a continual collecting of books and climbing in and out of desks, and having boys perpetually on the move as they answer or fail to answer some silly question addressed to the memory. If a boy is lazy or dull he will sink to the bottom quite as surely by a weekly inquisition as by an hourly one. A far better plan than either, is to have all dull, inattentive, or lazy boys immediately in front of the teacher, and the sharpest, most attentive, and reliable at the back of the class. A special desk can be reserved as the seat of honour for the monitor or any other boy who has "acquired merit". Moreover, it saves time and trouble to always know precisely where each boy is, and soon renders the calling of the register unnecessary. The use of badges to distinguish boys who have earned distinction is much better than the use of (constantly changing) "places".

The timely, right, and proper use of the *VERNACULAR* is a very useful teaching device in Indian High Schools. All teaching is done in English from Standard IV upwards, and rightly so, as this is of the very essence of the Direct Method. But why should the keen and energetic teacher, who eagerly grasps at every teaching device which will enable him to help his scholars to a better *understanding*, deny himself the use of this ever present help in time of trouble? If an English word, phrase, idiom, or reference, is not understood, and a long explanation in English makes things still

more hopeless, why not say the word which will make everything clear, simply because it is an Indian word? It is pedantry run mad to make obscurity doubly obscure instead of assurance doubly sure, simply because the "translation method" is discredited. Whenever and wherever a vernacular explanation can give a clearer understanding than an English one, it should be utilized, though of course the necessity for appeal to the vernacular will rapidly decrease from Standard IV until it almost disappears in Standard VII.

LECTURING is sometimes spoken of as a "teaching" device. Lecturing is a lecturing device, and when the teacher is lecturing he is not teaching. The fact that lecturing is sometimes necessary in the upper classes does not make it teaching. Lecturing is right and proper for the *trained* adult student, but it is a *post-training* and not a training method. The point cannot be better put than it has been by Thring:—

The teacher's subject, as has been shown, is not books but mind. On the other hand, the lecturer's subject in the first instance is not mind, but books. This distinction is vital, and the most important results follow. Broad is the dyke, and deep, that cuts across between the teacher and the lecturer, dividing them by a bridgeless space. They stand on the same level; at a little distance they appear in the same field; to the ordinary eye they are engaged in the same work, with the same surroundings, and the same object. But they are divided for ever in theory and in practice. It has already been shown that the subject of the teacher is the mind of the individual; that his first, second, and last thought must be mind, and how to get at mind. But the first, second, and last thought of the lecturer is how to get out his book-work in the clearest and most presentable form. His books and the way he handles his books must be his subject. This arises from the nature of things. The lecturer has to deal with knowledge. He is a knowledge-master and must conform himself to the conditions of knowledge. Knowledge demands that the work to be done should be put out from beginning to end without flaw, and with perfect skill. To do this implies that the worker, uninterrupted by any external consideration, should do the work himself, shape it, polish it, and with great artistic skill turn out a work of art. He addresses a mass. The component parts of his audience, the single minds with their difficulties, are nothing to him. He assumes, and is justified in assuming, that *the audience are prepared to understand him by previous acquirements*. . . . The audience must take care of themselves. A good lecturer puts out his work wonderfully well, and those who profit by it come already prepared, and adapt themselves to what they hear. Is this last a definition of the English schoolboy

—or *any* schoolboy? But it is in this that the difference lies between teacher and lecturer, between taught and belectured. *The teacher makes the taught do the work, and occupies himself in showing them how to do it, and taking care that they do do it.* His work is to direct, suggest, question, inspire; and he adapts himself in every possible way to the individual minds, never resting until he has made them master of the *skill* required, and seen them become capable of working on their own account.

The lecturer leaves his audience, and they leave him; and he goes his way entirely regardless of their fate, only concerned with having performed with credit to himself. The distinction is vital. Excellence in the one is a complete reversal of excellence in the other. The lecture is clear-cut, logical, precise, beautifully connected, yet avoiding all close and laborious exactness.

Teaching takes any shape whatever, is fragmentary, changing as the difficulties of the pupils' minds change, and disregards all precise plan, provided that a close, laborious, and exact exercise of mind is the result. *The lecturer does the work, and goes.* The teacher makes the pupils work and stands or falls by what they do.

And at the bottom of this lies the truth (enunciated before) that in the lecture the facts are important, while in the lesson their presentation and manipulation are important. Lecturing is giving information and teaching is using it.

Nearly all Indian "teachers" are lecturers!

CHAPTER X.

SPECIAL METHODS: SOCRATIC, HERBARTIAN, AND
HEURISTIC.

"All the world knows Socrates. Many schools of philosophy and a countless number of paths of research, and a countless number of learned men owe their existence to Socrates. Socrates was a great Teacher, but in modern phrase *he taught nothing*. Socrates is judged to be the greatest teacher the secular world ever had, but *he poured no knowledge in*."—

• • • • •
"Pestalozzi—seized and developed by the philosophic thought of our times—must be studied in *Herbart*."—*Mager*.

"From Nature man attains to *knowledge* through Experience, and to *sympathy* through Intercourse. Experience and Intercourse are the two constant teachers of men."—*Herbart*.

"The worth of a man depends not upon his knowledge but upon his goodwill."—*Herbart*.

• • • • •
"I believe the Heuristic to be in principle *the only true method of learning*."—*Armstrong*.

"He who makes a little child happier for one hour is a co-worker with God."—*Dwight*.

CHAPTER X.

SPECIAL METHODS.

IN applying the ten fundamental principles of teaching noted in the last chapter, various great educationists have considered various individual principles as being of greater importance than the rest, and have made these the basis of their special methods of teaching. The SOCRATIC METHOD, for example, is built upon rules 3, 5, 7, and 9, as Socrates believed that the essentials of sound and scientific teaching were ASKING AND NOT TELLING, PROCEEDING FROM WHAT THE PUPIL ALREADY KNOWS, INDUCTION, AND THE ENCOURAGEMENT OF SELF-TEACHING.

Socrates, who lived in Athens twenty-four centuries ago, was constantly teaching, but he never told anybody anything. He knew that all men and all children come to their teacher with a mind already stocked with experiences, observations, ideas, and a fund of common knowledge. With this material he built up the required edifice, and from this starting-point of the known, he set forth into the wilderness of the unknown, not *carrying*, but *guiding* his pupil.

To a question he replied with a question, and before long the asker himself answered his own original question. (The pupils of Socrates were *not* preparing for memory examinations).

It has been well said of him :—

Socrates is judged to be the greatest teacher the secular world ever had ; but he poured no knowledge in. He describes himself as “ a man-midwife for mind,” who assisted other people to bring into the world new births of mind. What a noble yet simple definition of what all teaching should contemplate, new births of mind !

He created a science of questioning which to this hour bears his name ; but the answers were theoretically already in the persons questioned. His

system presupposed material gathered, but material gathered in order to be made the after-structure of thought. His questions have been searching the world ever since they were put into it, and have quickened the perception of all generations; *but Socrates could not have produced a single pupil able to show a modern examiner what he had gained; or to satisfy ("satisfy" we call it) an examiner's demand for knowledge in a modern examination paper.*

In the first place, *Socrates imparted no knowledge at all*, and examinations have knowledge as their work and aim. Socrates therefore would be nowhere in an examiner's specimen list.

Socrates again scornfully rejected all the stock in trade of competitive examinations. Socrates, therefore, would starve in the enlightened nineteenth century as a teacher; there is no room for teachers.

On the other hand, Socrates the Teacher applied so subtle an instrument of mind, by his questions, to all he met, that he forced them to sift and arrange their ideas. Socrates the Teacher sent a plough into the hearts of men, and broke up the ground, and then followed with living breath of strange efficacy, like a spring wind, and called out into new existence all the latent germinating power, all the push of life within.

Socrates sent new longings, and new capacities for satisfying longings, into his disciples, not new knowledge in the modern sense; and the receptive mind gathered strength and clearness, felt its want, and eagerly set about supplying it.

So it came to pass that *Socrates who taught nothing, produced disciples that learnt everything.*

Nevertheless the hard fact remains that Socrates as a Teacher would starve nowadays and be plucked himself in a competitive examination. There would be nothing to produce "to satisfy" an examiner.

The nature of things makes the extremes of *the most perfect training on the one hand, and of producible knowledge on the other, absolutely antagonistic.* Or, in other words, the time spent in questioning with a view to train cannot be spent in carting in knowledge with a view to turn it out again on demand.

We use the Socratic Method when we elicit or teach by questioning, and always *ought* to use it when time permits and the conclusion at which we wish to arrive is already within the reach of the guided intelligence of the class. *An increased use of this method in Indian class-rooms is badly needed.*

The HERBARTIAN METHOD finds great favour in Germany at the present day, and, as a teaching method, regards rules 5, 6, 7, 8 and 10 as all-important. The Herbartians hold that teachers should particularly and above all PROCEED FROM THE KNOWN TO

THE UNKNOWN, FROM THE CONCRETE TO THE ABSTRACT, TEACH INDUCTIVELY, BE INTERESTING, AND FOLLOW NATURE.

Herbart, a German philosopher and a professor in the Universities of Königsberg and Göttingen a century ago, was a disciple of Pestalozzi, and discussed in theory what his inspirer did in practice.

He held that the sole end and aim of education is *character*, and followed Kant in believing that "there is nothing in the whole world, or indeed out of it, which can be taken without limitation as *good*, except the *goodwill*". With him instruction must make for character, and it is solely with a view to its influence on character that we must draw up our curriculum or fashion our method of teaching.

As an educational system the Herbartian Method makes Ethics and Psychology supreme, and in its striving to achieve development of moral character makes the *selection*, *connexion*, and *presentation* of matter its particular care. In the *presentation* the teacher must follow the natural laws by which the juvenile mind works, and proceed from the known to the unknown (apperception) and from instances to the law. Having guided the child to formulate the law himself, he must guide him to apply it. Herbart's theory of the Five Formal Steps is an elaboration of the inductive principle.

Another important feature of the Herbartian Method is the correlation of studies. Every subject should be connected with every other, with history as the starting-point.

The most important applications of Herbart's philosophy to the science of education are the recognition of the value of Apperception, the Correlation of studies, and the Five Formal Steps in teaching. These are briefly described below:—

I. APPERCEPTION has been variously defined by different writers; perhaps the simplest and briefest explanation of the term is *association of ideas*, Herbart insisted that all new knowledge to be imparted to children should be connected with what they already know; and, therefore, a necessary preliminary of any lesson must be to ascertain what the pupils have been taught which is at all kindred to the subject.

II. CORRELATION assumes that the various subjects of school work may be taught in connexion with each other, and thereby rendered mutually helpful. For example: spelling, reading, and writing are readily associated; history

can only be intelligently taught when connected with geography; and composition, literature, and recitation may profitably be co-ordinated with the other two subjects. Similarly drawing, science, and mathematics may be closely related. The followers of Froebel have shown how correlation may be applied in the infant school.

III. THE FIVE FORMAL STEPS constitute what is sometimes known as the "Herbartian Method" in its more restricted sense. The method was first elaborated by Herbart and his followers, although the principles underlying it were employed by Pestalozzi. By some writers it has been named the DEVELOPING OR GENETIC METHOD.

Taking as their foundation the principle of Apperception, the Herbartians insist that the successful development of any lesson must proceed according to five steps, each of which is closely connected with that which precedes and follows it. These steps have been variously named by different disciples of Herbart. According to Professor Rein, they are:—

1. Preparation.
2. Presentation.
3. Association.
4. Generalization.
5. Application.

Other Herbartians have described the last three steps as Assimilation, Application (or Association), and Recapitulation respectively.

The method assumes that by preliminary questions the minds of the pupils must be *prepared* for the new matter to be taught, and that when their attention has been turned to that particular region of knowledge which relates to the subject of the lesson, so that right ideas are uppermost, the new facts must be *presented* in suitable sections. Following this second step is the work of *associating* the new with the old by means of comparison, contrast, illustration, etc., until the pupils are ready for the fourth step, which will consist of a general summary of the facts or principles dealt with. The last step is designed to test if the main points of the lesson have been fully grasped, by requiring the children to apply their knowledge to fresh instances. This may consist of exercises to be worked (as at the conclusion of a lesson in arithmetic or grammar) or in requiring the class to answer a number of questions, either orally or in writing. The method is founded on thoroughly scientific principles, and, inasmuch as it proceeds from the known to the unknown, from indefinite to definite, and from examples to principles, it will be found that the formal steps are in full agreement with the general principle of instruction.—*Boardman*.

Herbart also held that by *nature* the development of the child corresponds roughly to the chief phases in the development of the human race. As the history of mankind shows that the human race passed through the stages of cave-dwelling, tree-dwelling, hut-

building, fire-making, clothes-wearing, hunting, and agriculture, so a child in its play passes through the phases of digging (on the beach) making "cubby-holes," tree-climbing, building with blocks, making bonfires, "dressing up," clothing dolls, throwing stones, using bows and arrows or catapults, and having its own plot in the garden in which it can grow its own plants.

There may, or may not, be a close connexion between the phenomena. Herbart thought there was, and Goethe, Ziller, and Spencer agreed with him. Goethe remarks: "Although the world in general advances, the youth must always start from the beginning, and, as an individual, traverse the epochs of the world's culture." Ziller observes: "The mental development of the child corresponds in general to the chief phases in the development of the people or of mankind"; while Spencer has said: "The genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race," and, "If there be an order in which the human race has mastered its various kinds of knowledge, there will arise in every child an aptitude to acquire these kinds of knowledge in the same order".

In actual practice the Indian teacher must be a Herbartian (1) in his method of proceeding from the known to the unknown and from the concrete to the abstract, of teaching inductively, of making his lessons interesting, and of following Nature; (2) in his method of teaching to develop character; and (3) in his association of ideas and correlation, so far as possible, of subjects.

The HEURISTIC METHOD is founded on rules 3, 4, 7, 9, and 10, for its adherents consider it all-important that THE PUPIL SHOULD FIND OUT EVERYTHING FOR HIMSELF, THAT HE SHOULD LEARN BY DOING, THAT HE SHOULD BE TAUGHT INDUCTIVELY, SHOULD BE ENCOURAGED TO TEACH HIMSELF, AND THAT HIS EDUCATION SHOULD BE NATURAL. It is an absolutely scientific, natural, and rational method in theory, but in practice, under modern conditions it is impossible, though every teacher who teaches according to the before-mentioned ten laws is to some extent a follower of the Heuristic Method.

It may be described as the "happy" method by which the

learner investigates for himself, finds out everything by his own observation and experience, and accepts nothing on trust. It is the method of investigation and experiment, and the absolute antithesis of cram; the method of analysis and discovery; in fact—the method of induction.

“Five-and-twenty years ago I made my appearance as an advocate of what has been dubbed the Heuristic Method—the method which entails putting the learner in the attitude of inquirer, in training the pupil to inquire always into the meaning of what is learnt. I believe it to be in principle the only true method of learning. The idea has found favour almost generally, but the progress made in applying it has been slight—and this was to be expected, as teachers were few and far between who could carry the method into execution; moreover, so few teachers will allow their pupils to learn: they are too impatient and insist on teaching them and on doing the work of teacher and learner—in fact, in these days, the learner is a rarity; examinations have almost destroyed the breed. If here you desire that your children shall grow up virile men and women with some honesty of purpose left in them, you will end and not mend a system which is sucking the very life-blood out of the youth in the Mother Country—you will insist that your children shall be taught little but learn much.”—*Prof. Armstrong, 1909.*

On the other hand :—

“This ‘happy’ method has been most unhappy of late in its advocates, who have tried to push it beyond the bounds of reason. It is the method of ‘discovery,’ and it demands that a child should find out everything for himself. He is to be told nothing. The teacher may supply the material for the process, but after that the child is to be independent of the teacher. He is to be placed in the position of an original discoverer.

“The position is absurd; for if the method is sound it should apply to all branches of instruction. The method then becomes antediluvian, and demands for its practice an average age equal to that of Methusaleh. It casts away the accumulated experience of past ages, and creates, in so far as it can, successive crops of juvenile Adams and Eves without the stimulation of an Eden.”

But :—

“Interpreted rationally the method is both sound and interesting. What a child may discover for himself under reasonable conditions of time, cost, and mental profit should be learned by this method; other things should be told, explained, or demonstrated to him. It has already been pointed out that a child’s ideas are ‘scanty and ill-organized’; and so the teacher’s business is not to leave him to fumble his way as best he can, but to give him just as

much help as will enable him to make real and encouraging progress in the paths of simple research."—*Raymont*.

"The best of teachers will tell a class some fact in natural history, when he might have taken them into the fields to observe it for themselves. The fact is wanted then and there; to observe it directly would cost half a day; to omit all mention of it would be to omit a necessary qualification of an important principle which is being worked out. If we are to make our natural science absolutely for ourselves, we must be prepared to spend some centuries upon it."—*Miall*.

In India at the present day it would be impossible to teach entirely by the Heuristic Method, but the more the teacher can temper Telling with Investigation, leaven Information with Inquiry, and combine Learning with Teaching, the better for India.

SECTION II. DETAILED PRACTICE.

APPLICATION OF THE PRINCIPLES OF EDUCATION
TO THE TEACHING OF THE ORDINARY CLASS
SUBJECTS.

“Instruction should be subordinated to the end of Education.”—*Spencer*.

“All Education is *development and discipline of faculty* by the communication of knowledge; and whether the faculty be the eye and hand, or the reason and imagination, and whether the knowledge be of Nature or Art, of Science or Literature, if the knowledge be so communicated as to *evoke and exercise and discipline faculty*, the process is rightly termed Education.”—*Royal Commissioners on Education*.

CHAPTER XI.
THE TEACHING OF ENGLISH.

"Conversation maketh a *ready* man."—*Bacon*.

"All languages, both learned and the mother tongue, should be gotten, and gotten only, by *imitation*."—*Ascham*.

"Every language must be learned by *use* rather than by rule."—*Comenius*.

"Talking should come before reading and writing."—*Pestalozzi*.

"The natural way for a child to learn a language is to begin with the units of the language, which are *words*."—*Calkins*.

"What the learner experiences and observes must be connected with language."—*Pestalozzi*.

"Words should be learnt in connexion with things. The object first and then the expression."—*Comenius*.

"Educational methods should follow the order of Nature."—*Comenius*.

"Inflexions are not the soul of Grammar."—*Hales*.

"Grammar should be learned inductively and applied deductively."—*Landon*.

CHAPTER XI.

THE TEACHING OF ENGLISH.

The pupil must think in English.

The Direct Method is the method of synthesis, of imitation, and of Nature.

THE very best way to teach an Indian boy English would be to take him to England as soon as he was born and let him hear no other language but English. By the time he was six years old he would speak it with ease and fluency, without ever having had a single lesson.

Since we cannot take him to England the next best plan is to bring England to him. In other words, to reproduce English conditions in the class-room and let him hear nothing else but English in his English lesson *so far as possible*.

Also to try and put him in just the position, and give him just the treatment, of an English child learning to speak English, or a French child learning to speak French, or an Indian child learning to speak Hindustani.

The English baby who, in six years, develops from perfect ignorance and dumbness to almost complete comprehension of, and fluency in, English, does not do so by means of grammar and translation. Nor does the French baby in French, nor the Indian baby in Hindustani. Further, the English baby born in India can generally speak Hindustani as fluently in six years as can the Indian baby born at the same time, and very frequently *can speak and understand it sooner and better than its own father who has had courses of lessons and passed examinations*.

Surely, then, the method followed by the baby of *direct imitation and use* must be far better than the method followed by the father, of grammar and translation.

Here the teacher can apply his rules of FOLLOWING NATURE, PROCEEDING FROM THE CONCRETE TO THE ABSTRACT, LETTING THE PUPIL LEARN BY DOING, TEACHING INDUCTIVELY, AND MAKING LESSONS INTERESTING AND ATTRACTIVE, by simply following the ordinary and natural course by which a child learns its *own* language, and shortening it as much as possible by his help and guidance.

For the pure natural method could only be followed if the teacher could devote several years to the work, and teach the English language all day long as the English child learns it. As it is, he must supplement Nature with his art but follow her at the same time, instead of flying in the face of Nature, as he does when he teaches grammar and translation with a view to giving the power of *speech*.

Probably the world would never have seen the deplorable and universal spectacle of the teaching of living speech by the writing of the rules of grammar and the translation of exercises, had it not been for the fact that both in the East and in the West the first languages taught in the schools were the "dead" languages.

Since the Renaissance, Latin and Greek have been taught in English schools, and as these languages are studied that they may be *read*, and not spoken, they are studied through grammar and translation. When French and German were also taught in the schools the "dead" methods were applied to the living, with appropriately fatal results—which, however, did not prevent their transference to India, for the teaching of living English. We have taught the Indian boy English as though it were a dead language, and then expressed surprise that he could not handle it as a living one. We have taught him grammar as though it were a sacred thing; we have taught him translation as though it were the essential thing; we have neglected oral composition (and pronunciation) as though it were not the one and only thing.

To teach our pupils swimming we put them into water and make them swim; to teach them to talk English let us put them into English and make them talk. And just as we give the swimming boy a word or two of explanation and theory, so let us give our English-learning boy a word or two of grammar *when necessary*.

The English child who is a fluent speaker of Hindustani at the age of six, has never heard the word "grammar". The Indian boy learning English should never hear it either, until he is fairly fluent. It is far better to know a lot of English and no grammar, than to know a lot of grammar and no English. In other words, the grammar is Theory and the English is Practice, and in teaching a living language Practice is the essential. The grammar should follow the English and help to explain the construction of the English, *not* the English follow the grammar to help and illustrate that.

To treat grammar as the essential and the living language as a useful illustration of its rules, is like endeavouring to live upon the digestive pill as a diet, and taking a little food to show how it works.

There are many thousands of highly educated, cultured, and literary people who could not *parse* a word any more than they could misuse one. There are also many thousands of Indian schoolboys who can parse English words very accurately, *but they can't use them*.

Which is better, to know all the rules of English grammar and all their exceptions and be dumb, or to be able to understand and speak the language accurately?

If the latter, let us follow the Direct Method which aims at teaching by *use*, and of which the main principles are:—

1. To teach English *in English* without translation (when possible).

2. To make grammar the servant and not the master.

3. To teach through the ear as well as the eye.

4. To talk about *things* and not about words.

5. To give constant oral practice.

We shall then be FOLLOWING NATURE by teaching English in English, by letting grammar come after speech, and by teaching through the ear; we shall be PROCEEDING FROM THE CONCRETE TO THE ABSTRACT by talking about actual visible *things*; we shall be LETTING THE PUPIL LEARN BY DOING as we shall keep him constantly speaking; we shall be TEACHING INDUCTIVELY by letting him form his own grammatical rules in the light of his own experience, and we shall be MAKING THE LESSONS INTERESTING AND

ATTRACTIVE by having pictures and objects to talk about, and, more, by making the pupil feel how rapidly he is acquiring skill, and by letting him display it.

In other words we shall be teaching rationally and scientifically.

Two points, however, the teacher must carefully bear in mind when teaching beginners. The first is this :—

When he abandons the discredited translation method in favour of the only sensible method, he must not suppose that it is heresy and wickedness to utter a word of the vernacular during the English lesson. This is nonsense, and it is a foolish waste of time for a teacher to go through some laborious and fantastic pantomime to convey the meaning of some English verb when a single word in the vernacular will do it.

To refuse to use the vernacular when necessary is to throw away the most valuable tool he has got, and to deny himself the help of his best friend.

It is precisely because he has a medium of mental exchange and a vehicle of thought conveyance that he can teach the Indian boy English so much more quickly than its parent could teach an English baby English. The English baby's way of learning it is sure but very slow, natural but very gradual. Nothing but long and tardy experience can teach the baby the difference in meaning between "yesterday" and "to-morrow," "I shall come" and "I have been," or even between, "yours" and "his," and "he" and "she". The Indian boy can be taught the difference in their meanings in a word or two, and can proceed to use them in sentences of his own construction. His teacher has a weapon which the English baby's parent has not, or, to change the metaphor, a short cut is open to him which is not open to the baby's parent.

When we exclude translation we exclude it as an exercise for the boy, not as means of helping him for the teacher.

Whenever the object mentioned is not procurable, or an action is named which is not readily performable, the vernacular explanation should be supplied at once. By the Direct Method we teach English in English, but also in *comprehended English*, and for this an irreducible minimum of vernacular is necessary.

For the teacher must be sure that his "Direct" English is not parrot-English. He must not have boys repeating sentences after him, and gradually growing more accurate in pronunciation until they can say them very well—and not have the faintest notion as to what they mean.

None of the present generation of teachers was taught any foreign tongue by this "Direct" Method, and therefore none of them can put himself in the position of his pupils, or rightly appreciate and measure their difficulties under this system. The following plan is therefore a sound one for helping the teacher to see the method *from below* as it were. (He knows all about it from above, by teaching it, and it is a good thing for him to see it as his boys see it.)

Let a number of teachers join together and invite one of their number who knows French (or some other language unknown to the rest), or some obliging French, or other language, master, to give them a lesson in this unknown foreign tongue, by the Direct Method. (Should he be requested to entirely exclude all use of the vernacular, those who have been in the habit of doing so will very soon see the error of their ways.) As the lesson proceeds, with its strange sounds and its bewilderingly increasing vocabulary, its double difficulty of comprehension and pronunciation, and its infinite possibilities of misapprehension, the class of teachers will have a valuable lesson in the difficulties experienced by their own pupils in following their own English lessons by this method, save when they are very skilful and careful. They will also see the temptation to become parrots, and to carefully imitate without endeavouring to understand.

The second point to be borne in mind is this.

The English baby learning English, does so under the stress of *necessity*. It *must* learn English in order to be able to give expression to its desires. It must learn to talk as it must learn to walk, to feed itself, to put on its clothes, and to wash itself.

The Indian boy is under no such compulsion. Far from being *compelled* to speak English in order to make his desires known, he is, more often than not, debarred from using it, because his auditor would not understand him if he did. It is therefore the duty of

the teacher to supply *artificially* the *natural* stimulus existing in the case of the English infant. This he must endeavour to do by the attractiveness of his lessons whereby *interest* shall take the place of *necessity*, and by constantly encouraging the use of English outside the English lesson. (An excellent reply to a boy asking some permission or other is, "I shall grant your request when you make it in English".)

The two facts, that we cannot reproduce the baby's environment of constant English speech in which he learns to talk, and that we cannot artificially supply the natural stimulus of necessity, are the objections urged against the natural or "Direct" Method.

We *do* reproduce them from Standard IV upwards, because all the work is done in English (and nothing but English is spoken in the class-room), and because the natural stimulus of necessity is supplied by the fact that the boy is bound to speak English. (Only, unfortunately, he can only do it in a lame and halting manner, *because he has been taught grammar and translation instead of speech.*)

We *must* reproduce them as far as possible before Standard IV, and the more nearly we can do so, the better and more successful teachers shall we be.

The teacher who is beginning with the class just commencing to learn English must, in the first place, pay the very closest attention to pronunciation, beginning with his own. He must himself be able to say "We get wine from the vine," or "A verb is a word," or "The scholars of this school" correctly, and have quite cured himself of any tendency to say (or to allow) "We get vine from the wine," "A werb is a vord," or "The ischolars of this ischool".

When he finds a tendency to mispronunciation he must give an exaggerated model of what he wants, have repeated practice, and, when necessary, a preliminary placing of the tongue, teeth, and lips in correct relative position. For example, when correcting "wine" for "vine," he should make every boy tuck his lower lip under his upper teeth and satisfy himself that this is correctly done, before the word is spoken. He must pass on to no new word until the old one is thoroughly mastered. He must constantly provide the

model pronunciation, and he must give his model very slowly and with considerable exaggeration. This is infinitely better than making confusion worse confounded by inventing a new alphabet of conventional letters for a phonetic script, as if the English alphabet did not present enough new matter and new difficulties. If the teacher can pronounce properly he is the right and proper source of information; if he cannot, no amount of phonetic script will help his pupils. The proper pronunciation has got to be given first by *somebody*, whether the word is written in phonetic script or in plain English, and it is difficult to believe that a boy will pronounce "nothing" correctly because he sees it written " 'nʌθɪŋ," or "there" when he sees it "θɛə," or in some other fantastic form. And having made up his mind that he will at all costs have accurate pronunciation, where is he to begin and what words is he going to select for his first essays in "Direct" English?

If he has a class-book his material is ready to hand as soon as the pupils know their letters (both printed and written), and he can follow its lessons and the directions for the teacher. Such books as those by Professor J. Nelson Fraser ("The First Steps in Teaching English by the Direct Method, etc." Longmans, Green, and Co., Bombay) will be found most useful. Should he decide to do without books for some time, and endeavour to teach conversationally first, so that his boys may learn English (as the English baby does) *before* they can read, he must commence by giving the names of a few objects in the room, such as chair, table, book, desk, door, chalk, boy, map, pen, etc., taking the utmost care over the pronunciation.

After telling his boys in vernacular that they are now going to talk English and become English scholars in no time, he should point to the chair, say that he is going to give its English name, and that henceforth they will know it by that name. He should then say "chair" slowly, clearly, and carefully, with plenty of play of lips, and display of teeth and tongue. (Never be afraid to open the mouth, and always insist upon boys doing the same.) The class should then repeat it several times simultaneously, and then every boy should be heard and corrected individually. The process should be repeated with "table," "book," "desk," etc.,

"the" and "a" introduced, and then as the teacher points rapidly in turn to each object, its name should be given by the class. Thus both vocabulary and power of pronunciation will increase side by side. Having taken a score of objects whose names the boys know and can pronounce properly, a good plan is to bring them into relation with each other, and form simple sentences describing the relationship. The teacher should say in the vernacular "The book is on the chair," and having placed it there, should say in English *very* slowly and distinctly, "The book" (tapping it with his finger) "is ON the chair" (pointing to it as he names it), and have the sentence repeated simultaneously and individually until he is satisfied.

He should then put the book under the chair, and without any vernacular say, "The book is UNDER the chair," and have this sentence also repeated simultaneously and individually until it is said plainly by all. Similarly he can deal with "The chalk is on the desk," "The chalk is UNDER the desk," and then have the chalk on and under the chair, the chair on and under the desk, and so on.

He might then say in the vernacular that he is going to tell certain boys to put the chalk on the chair or under the chair. He then says very slowly and distinctly, "I PUT the chalk ON the chair," pointing to himself as he says "I". He also puts the book on the desk, the chalk on the desk, the book under the desk, the chalk under the desk, and so on, always pointing to himself as he says "I".

The boys have been watching very keenly because they know that they will be called on to perform the action themselves. Having clearly shown what "putting" is, the teacher should now *point to a boy* and say slowly, "PUT the book ON the chair". If he does it rightly he should then say, "PUT the book UNDER the chair," if he does either wrongly, another boy should come and do it.

The next step is to tell the boy in vernacular to say in English what he is doing; if he cannot, the teacher should perform the action again and say, "I put the book on the chair," and make the boy repeat it after him.

He should then introduce other prepositions, *behind, above, near,*

between, beside, among, around, etc., and continue until, when he says to a boy in English, "Put the chair between the desk and the table," the boy can understand him, come and do it, and say distinctly as he does it, "I put the chair between the desk and the table"; or until when he says to a boy, "Put the book among the pens" the boy can understand him, go and do it, and say distinctly as he does it, "I put the book among the pens".

The teacher can then introduce adjectives by having red, green, or black books; long and short pieces of chalk, large and small sheets of paper, coloured crayons, thick and thin pieces of string, etc. He can introduce new verbs by writing with the chalk, opening and shutting the books, tearing the paper, tying the string, and so on, until he has a vocabulary whereof the *nouns* are represented by *objects in the room*, the *verbs* are applied to *actions performed by the class*, the *adjectives describe the concrete objects*, the *prepositions show the actual relationship between the objects*, the *pronouns apply to the persons present*, and the *adverbs describe actions actually performed*.

He will find that in a surprisingly short time the boys will be able to say and completely understand such sentences as: "I write on the board with red crayon," "I tie the thin string round the black book," "I fold the paper and open the book, and put the folded paper in the book," etc.

A good plan is to leave the class-room when everything in it has been utilized for conversation, and hold the lesson in the compound, the class standing in horseshoe form round the teacher. Here flowers, trees, grass, stones, birds, clouds, the sky, the sun, insects, shadows, water, leaves, nuts, fruits, the malli, the bhisti, the school building, the compound, bricks, the wall, and a hundred other subjects suggest themselves for treatment similar to the foregoing.

When the compound is exhausted of material, the street can be watched from the verandah, and trams, cabs, bullock-carts, motor-cars, hand-carts, pedestrians, fruit- or sweetmeat-sellers, shops, buildings, lamp-posts, cleaning and watering arrangements, policemen, postmen, peons, or soldiers, be taken as subjects of conversation.

Whatever the subject, the treatment is the same. The name must be given clearly and distinctly and repeated with its correct pronunciation. Some verb descriptive of its action must then be similarly treated, and then adjuncts supplied to both.

When the class-room, the compound, and the street have formed the subjects of several lessons, the teacher can proceed to deal with some bright, clear, and interesting picture, the parts of the human body, the apparatus of some common object-lesson, the points of some bird or animal present in the room (parrot—beak, eyes, feathers, legs, wings, claws, cage, perch, seed, etc.; dog—teeth, nose, hair, tail, claws, collar, chain, kennel, food, etc.); the parts of a book (pages, leaves, cover, print, lines, words, letters, figures, pictures, index, etc.) and any other subjects of conversation that occur to him. (Though always dealing with actual objects, the teacher must not forget that in this lesson *words* come before *ideas*, and that it is a *language*-lesson and not an *object*-lesson.) He should think out some series as above indicated and then be careful of the two great essentials—that everything is clearly understood and that every word is correctly pronounced.

As soon as the class has a fair vocabulary and can give an English word for a common object or action, they should be taught to recognize and to give the symbols of the sound expressing the name of the object or action. In other words to read and write.

The English baby learns to talk English years before it learns to read or write it. First it recognizes objects, then it names them, then it is taught to recognize the written symbols of the sounds of the name, and lastly to write those symbols. Thus a child *recognizes* a dog, and learns to *call* it a dog. If we drew a sketch of the dog it would recall to the child's mind the actual dog, and later the child could be taught to sketch the dog in order to recall it to the mind of another person. Instead of sketching the dog, however, we use the symbols d, o, g, to represent the name "dog," and teach the child to *connect* these in its mind with the name "dog," just as it connects the name "dog" with that particular animal. Later we teach it to *form* these symbols (instead of drawing the dog) when it wishes to recall the name "dog" to the mind of some other person.

Thus before the Indian boy can read and write in English he has first, to know the English name of the object, secondly, to know the form of the symbols for that name, and thirdly, to be able to make those symbols. We should therefore teach him to speak English first, then to read English, and lastly to write English. A good plan is to do the first for about four months, the first and second for about another four months, and all three together thereafter. The proper methods of teaching reading and writing are dealt with elsewhere.

Very early in his first course of English lessons the teacher should introduce English *orders* such as "Stand," "Sit," "Forward," "Halt," "Raise your hand," "Open your books," "Take up your pens," "Look at the board," "Speak loudly," "Listen to me," and any other orders frequently addressed to the whole class. The first time the order is given in English, it should be explained in the vernacular, and practised a few times continuously to impress its significance.

Needless to say, every time a boy answers any question or makes any statement, his English, if faulty, should be immediately corrected by the teacher and repeated by the boy.

And when should English grammar be taught? Not at all? Certainly not until the boy is fairly fluent and proficient in English, and then only incidentally and when it is wanted.

The grammar must follow the language and not the language the grammar, and it must be taught practically, inductively, and rationally, *and in connexion with the composition lesson* rather than with the reading lesson. Better never teach English grammar at all, than teach it as being in itself a sacred and valuable thing, whose beautiful rules the English language merely exists to exemplify or contradict. It is highly probable that the majority, if not all, of the great classical masters of English prose from Chaucer and Shakespeare to Scott and Macaulay would have failed to "satisfy the examiners" in a modern matriculation grammar-paper suddenly presented to them.

"The moment language is viewed as *thought* moving, and making its own shape as it moves, the teacher finds a happy hunting-ground full of game; and, without book, by simple questions, can surprise his pupils into all sorts

of discoveries, and *make them frame for themselves every rule of grammar*, and arrange their own mind machinery, at the same time that they can be made to see how every thought that takes shape, the bench they sit on, the picture on the wall, the building they are in, yea, the whole created world, have been obedient each in their way, to the same great laws of composition ; and, since all are thoughts taking shape, all have been shaped and wrought on the same principles. And the old worm-eaten stuffed skins of grammar rules which made words, dead words, their function, and treated them as dead, apart from living thought, will in time find their way to the curiosity shops, and the garrets."

CHAPTER XII.

THE TEACHING OF READING.

"Reading maketh a full man."—*Bacon*.

"Read as you would speak."—*Facotot*.

"If you are *singing* you sing poorly; if you are *reading* why do you sing?"
—*Compayré*.

"Remember your consonants and forget yourself."—*Landon*.

"To have heard of Cervantes, of Dante, of Spencer, of Keats is a step in education. To know there is a literature of the world, and to have felt, even for a moment, something of its seriousness, its beauty, its generous position, its pathos, its humour, is to lay a good foundation."—*Dowden*.

"Learn to read *slowly*: all other graces
Will duly follow in their proper places."

"The reading lessons should be used not only to secure the bare power of reading—a most valuable power—but they should be made to contribute to the opening of the soul and the imagination."—*Arnold*.

"In acquiring speech the ear catches the sounds of words as *wholes*, and associates the sense with them without any analysis. So in reading should the sound and sense of words be associated with their forms as wholes, without any analysis for that purpose. The eye does in the latter with the forms, what the ear does in the former with the sounds."—*Currie*.

CHAPTER XII.

THE TEACHING OF READING.

"The value of good reading aloud has never been recognized. Good reading is the first training of the beginner, the last crowning excellence and consummate perfection of the finished master of all perfected culture. Reading is the sole giver of words and teacher of word-meaning."—*Thring*.

As a rule the Indian boy cannot *read* although he can say the well-known, oft-repeated words of the reading-book (which he has been "taught") in an expressionless, unnatural voice. It is strange how he will always say he has "not been taught that page" if asked to read any unseen piece. And yet it is not strange either, because too often it is the page that is "taught" and not the boy, inasmuch as the object of the teacher has not been to give skill and power, but to give a knowledge of certain words. Once again fact, and not faculty, has been the objective. What an extraordinary professional attitude is that of the teacher who regards the reading-book as a thing to be "taught," and openly declares that his class can read it up to a certain point in a certain page and no further, as if a parrot-like familiarity with a few dozen lines was the same thing as the ability to read all matter suitable to the standard.

Even in the case of the English reading-lesson it should not be a matter of so many pages of a certain book being taught until they are almost known by heart, but a matter of imparting skill in reading English of suitable simplicity or difficulty.

The writer has very frequently listened to "reading" lessons in which there has been everything but reading! Copious explanations, definitions written in notebooks (often more difficult of comprehension than the thing defined), parsing, analysis, para-

phrase, much talking on the part of the teacher, questions on the text round and round the class (one boy being dealt with at a time while the others did nothing)—but no reading.

The blame for this frequently lies with those who chose unsuitable books, but if it be a reading lesson, at least three quarters of the time should be given to reading, and not more than one quarter to prefatory explanation of what is to be read. If a teacher really needs much more than ten minutes for the explanation of the matter for a fifty-minute reading lesson it is certain that his book is unfit for his class, or his boys (through hasty promotion) are unfit for his book.

Of all the subjects of the school curriculum, and of all the things a child is taught to *do*, reading is by far the most important. Not only is it an excellent mental training in itself, but the greatest of all educational *instruments* as well. A man might be unable to write and unable to cipher, and still have all the realms of literature, science, and history at his feet. To be able to read is to be able to educate oneself both mentally and morally, and to attain a high degree of culture by one's own unaided efforts.

Children who attend school for only a short time before becoming wage-earners, or whose labour only permits of their attending spasmodically and infrequently, should be taught, first and most, to read. Writing and arithmetic are important but secondary, and if they can get beyond the barest rudiments in only one of the "three R's," it should be in reading.

Reading should be regarded from two points of view, and taught in two ways. There is the actual and indispensable understanding of the written thought, and there is the important, but not indispensable, art of fluently stating the thought aloud in the words in which it is written. The ability to do the first does not imply the ability to do the second; the ability to do the second does imply the ability to do the first (in the case of "unseens" if not of the "pages taught").

A boy may be quick and accurate at reading a story, poem, or paragraph (to himself) and fully understanding it, but may be a poor, halting, and inarticulate "reader" in the ordinary school sense. On the other hand, if a boy reads an "unseen" story,

poem, or paragraph aloud with ease, fluency, and correct expression, he must have understood it. One frequently hears a boy read a paragraph through without mispronouncing any word, halting, or stumbling, and yet one knows from the expression, or lack of it, that he has not understood what he has read.

It is, of course, far more important that boys should be able to take a book and read it through with clear comprehension, but it is also important that they should be able to stand up in class and read any extract well. To read *intelligently* for oneself is better than to read *intelligibly* for others. To do both is best.

The teacher should therefore make it a feature of his teaching of reading to have unseen extracts silently read, and their contents stated, so that he is teaching the application of the art as well as the art itself, and encouraging the use of skill as well as imparting the skill.

It is not enough for him to say, "My boys can read," unless he is in a position to reply in the affirmative to the query, "And *do* they read?"

To be able to gabble through the "pages taught" and stop dead at the last line "taught" is not to be able to read.

Those "pages taught" have a lot to answer for. When one asks a teacher what history he is teaching in his class, and is told, "I am teaching page 89; we have learnt 88 pages," one is tempted to wish that books of every kind except the reading-book could be excluded from the class-room, and development of faculty carried on without them. But even the reading-book is learnt by heart in very many cases.

Boys of Standard IV should be able to read any book fit for Standard IV, and boys of Standard VII any book fit for Standard VII, and should not be brought up to consider that the object of the reading lesson is to teach them by heart the contents of the particular reading-book to which they are doomed for a year.

Let us consider the proper teaching of English reading from the beginning (which should be the point to which the beginners have attained in our last chapter—the ability to understand and pronounce very simple English spoken about common objects and common actions). And let us note in the first place that the **WORD AND NOT THE LETTER IS THE UNIT**. It is obviously unnatural and wrong, though customary, to teach children the sound

of "a" is *ay*, and that the sound of "b" is *bee*, and that the sound of "ab" is *ab*, when he would naturally suppose it to be *aybee*; or that the sound of "c" is *see*, that of "u" is *you*, that of "t" is *tee*, and then to tell him that the sound of "cut" is *cut* when it should be *see-you-t* if what we have told him is true.

The English alphabet is a fearful and wonderful thing, being both defective and redundant, and unfortunate is the beginner who spends his first six months in its misleading and contrary mazes. Leave the alphabet alone and come to actual words which stand for actual things.

"But can a child read before it knows its alphabet?" asks the follower of the wretched "alphabetic method". Certainly it can. The writer knows a case of a little girl who can read any fairly simple English very fluently and correctly, and who *does not know the name of a single letter of the alphabet*. She learned to read more or less accidentally and unconsciously, and the incident is very instructive to the educationist.

Among the child's toys was a brightly coloured well-illustrated picture-book of nursery-rhymes in which she took great interest, and which were frequently read to her by her nurse and mother in explanation of the pictures. By repeatedly hearing the rhymes the child came to know them by heart, and when looking at a picture would repeat aloud the rhyme which described it, or rather which the picture illustrated.

Also, through noticing that the nurse and mother generally pointed to the printed lines of the rhyme at the foot of the page, the child pointed to the print as it said the rhyme, until it noted that a word in print stood for a spoken word, and then that the same word in print stood for the same spoken word, time after time. For example, the child read:—

"There was a *crooked* man
Who walked a *crooked* mile
And found a *crooked* sixpence
Beside a *crooked* stile.
He bought a *crooked* cat
Which caught a *crooked* mouse
And they all lived together
In a *crooked* little house."

and soon noticed and recognized time after time the word "crooked," and knew it if she saw it again elsewhere. She said to her mother one day, "That is the word 'crooked' isn't it?" and pointed to the word. Next followed the illustrated words *man*, *sixpence*, *stile*, *cat*, *mouse*, and *house*, and the child would point to these and to their illustrations, and moreover would know the words and read them singly if she saw them in the other rhymes or

elsewhere. And, as said above, she learned to read fluently, correctly, and with full comprehension *without knowing a letter of the alphabet and without any teaching*, by merely *looking* at nursery rhymes and *saying* them. Naturally she would have learned to read far more quickly if her mother had deliberately shown her the word *man* and told her to say it as she looked at it, and had pointed to the picture of the man and connected the thing and the printed word in the child's mind.

The teacher should be provided with a chart or a reading-sheet or boxes of block letters, and should point out on the chart, or form with the blocks, the name of some common object (such as dog, boy, cat, rat, box, pot, ink, pen, etc.) of which he has got either a specimen or a picture. The word should be said and repeated by the class several times as it is pointed to, *and should be connected in the minds of the children with the object to which it relates.*

Charts and reading-sheets are not generally so satisfactory as boxes of block letters, as the latter give the teacher absolute freedom of choice of words and are more interesting to children (both because they can be manipulated by the children themselves, and because the reading-sheet soon grows familiar, stale, and wearisome). Some reading-sheets, however, are very well arranged and illustrated, and are issued in conjunction with reading-books.

Whatever means of presentation he adopts, the teacher has only to take simple words, tell the class what they are, and make the class *look* at them and *say* them. In the beginning, series of similar words are best (with their illustrations), such as *ox, fox, box ; cat, rat, mat, bat, hat, vat ; dog, hog, log, bog, cog*, etc., to accustom the eye to the new characters, but at a *very* early stage whole sentences should be introduced (with appropriate illustrations), such as: *The cat has a rat on the mat, The dog is by the log, The fox is in the box*, and so on.

The sentences should be read by the class simultaneously and individually, very great care being paid to pronunciation, until they are satisfactorily done. The teacher should then make sure that the reading *is* reading, the outcome of the recognition of certain symbols for certain sounds, and not mere memory repetition, by making the class—and then individuals—read a sentence up to a certain point and then halt until told to proceed. For

example, if the sentence, "I put the chalk on the chair" (which has been already learned in English) is being read, the teacher should say, "Now read as far as here and then stop," and should point to "on". If the class or individuals read beyond, or stop short of, this point, they are not learning to read, but merely to repeat as they did in the English lesson.

Gradually, all that has been learned in the previous English lessons by the Direct Method should be read in print or the teacher's handwriting, and as soon as the class can read, the two can proceed side by side, the material of the reading lesson providing the subjects for conversation in the English-speaking and oral composition practice.

This way of teaching to read is the one and only rational method, and is in accordance with the fundamental principles of education. By it the teacher is FOLLOWING NATURE as he takes the *word* as his unit of language instead of the *letter*, and the child reads, as he talks, in words. He is making his lessons INTERESTING AND ATTRACTIVE to the children because he is dealing with ideas such as *the cat has a rat*, instead of with meaningless syllables such as *ab, ac, af, ag*, etc. He is PROCEEDING FROM THE CONCRETE TO THE ABSTRACT as he takes first the actual object, then its name, and then the symbols representing the name. He is TEACHING INDUCTIVELY by beginning with word examples instead of alphabetic laws, and he is STARTING FROM WHAT THE PUPIL KNOWS AND GOING TO WHAT HE DOES NOT KNOW by commencing with the known name of the object presented, and proceeding to its unknown symbols.

By no other method can these principles be adhered to, and in addition to its being in accordance with scientific principles, it has the further advantages that the veriest tyro can use it, by reason of its extreme simplicity; that it entirely eliminates the difficulty of spelling from the other difficulties of reading; that it is the only rational way of teaching such contradictory symbolizations as *bough, cough, rough, pot, yacht, quay, key, see, tea, me*, and the hundreds of other exceptions which are more numerous than the accordances; and that the power of ready recognition of complete words (upon which fluent reading depends) can never

be so quickly and thoroughly acquired by any system of teaching letters and syllables.

As this is not a cram-book the author does not propose to tabulate a number of other methods and then say that they are inferior, if not worthless.

As the children's vocabulary and facility in reading increase, lessons should be introduced wherein sets of similar words will train their powers of observation as their similarities and differences are noted. Such words as thought, though; saw, was; from, form; off, of; to, too; no, on; does, dose, etc., will prove stumbling-blocks in the reading lesson until the eye has been thus trained.

It will be found that the alphabet will meantime be learned *incidentally* to a great extent, and it will not matter if it isn't, until the class commences writing. When the teacher considers that the alphabet should be thoroughly well known he should avoid the stupid method of having it gabbled through from *a* to *z*. The best plan is to give out strips of paper or cardboard, straws or sticks, and have the straight-lined printed capitals A E F, H, I, K, L, M, N, T, V, W, X, Y, Z, made on the desks therewith by each child. (Letters composed of vertical and horizontal lines should precede those including oblique lines.) The teacher points to the letter on his chart, names it, draws it large and plain on the board, and the children form it with their strips or straws on the desks, and name it. When these are known, the capital letters composed of straight lines and curves B, D, J, P, R, U, should be formed with the same apparatus and pieces of string; and after these have been made, named, and learnt, the remainder C, G, O, Q, S, should be made with string, beads, shells, or stones.

The next step should be the similar treatment of the printed small letters. Next the written capitals, and then the written small letters should be taught.

By this method of teaching the alphabet, the children LEARN BY DOING, GO FROM THE CONCRETE TO THE ABSTRACT, AND ARE DEEPLY INTERESTED.

(The first "writing" lesson may then follow by the children being allowed to *draw* the letters large and singly on slates or

paper, but there should be no attempt at actual writing until the class can read, and also knows the alphabet thoroughly).

After the alphabet has been mastered, spelling may be introduced if necessary, and if reading has been taught properly by the "Look-and-Say" Method, *very little will be necessary*. By far the best way of learning to spell is simply to read. If children have been so taught that they have the trained observant eye, they have no difficulty in spelling any word that they have seen, provided they get a fair amount of transcription. If they do spell a word wrongly it looks wrong at once, because the "Look-and-Say" Method has given a kind of *spelling-sense*, and a sensitiveness to incorrect forms. Very many educated people who could hardly spell a word wrongly if they tried to, have never had a spelling lesson in their lives. Others are always in difficulties, and require the constant presence of the dictionary. Generally though the former have never been taught to spell, the latter have. It is the old story of the fact and the faculty. A large collection of words learned by heart is a poor substitute for the spelling-sense trained by the "Look-and-Say" Method.

The teacher must not, however, think that spelling is unimportant. Times have changed since Queen Elizabeth could spell "Burleigh" in sixteen different ways and "sovereign" in eight different ways on one page. A mistake in spelling in a letter from one educated Englishman to another would be looked upon as a kind of crime, and would be heard of with annoyance and shame by its maker, when the recipient of the letter told him of it with gleeful taunts and gibes. Moreover accuracy in spelling is a training in accuracy in everything else, apart from the consideration that misspelling may lead to misunderstanding, and cause trouble for the guilty one or his employers.

The definite special spelling lesson in which the class drones over the letters dozens of times is quite unnecessary if reading is properly taught, besides being quite illogical. Consider the folly of pointing to "yacht" saying it stands for the sound *yot* and then trying to make boys remember how the sound *yot* is represented, by making them repeat the sound *why-ay-see-aitch-tee*, as if that sound had any connexion with the sound *yot*!

If they are shown the picture of a yacht, and the word "yacht" and told to look at the latter and remember that it represents the

sound *yot* which is that of the name of the boat in the picture, they will be following a rational and logical plan, and will also (and therefore) be found to remember its form—which is its spelling. (The process will, of course, be helped if the teacher makes the presentation more vivid and impressive by writing the *ch* in coloured chalk.)

One would have thought that the deficiency and redundancy of the English alphabet, the representation of the very same sound by totally different letters, the use of the very same letters to represent totally different sounds, and the general absence of law, would have shown from the beginning the futility of the spelling lesson, and the attempt to frame a few rules illustrated chiefly by exceptions.

Where the teacher finds himself in charge of a class (taught to read on the alphabetic or some other "method") which cannot spell; or finds that he has taught his own class on the "Look-and-Say" Method so badly that the spelling is weak, he should on no account make his spelling lessons oral. The words to be learnt should be written on the blackboard (their peculiarities being exposed in coloured chalk), and they should be neatly written ten times each by the boys, who should underline the peculiarities marked by the teacher. When this has been done, the words should be dictated, and the corrections again written.

But why should the words not be spelt aloud so that two senses, the eye and the ear, may be employed instead of the eye alone? Simply because all that the ear hears in this case is misleading and confusing. If the word to be learnt is "colonel," how does the noise *see-oh-ell-oh-en-ee-el* help towards remembrance of the proper representation of the sound *kurnul*? There is no explanation or justification or defence for the form "colonel," and the only thing for us to do is to look at it and say, "That is the accepted form for this sound in this connexion," and to remember it.

If the English child learning to read and spell has all this difficulty, how much more has the Indian boy! And how much more important is it for him to be taught by the logical, simple, and natural method, of making him observe and note the form of every new word (and they are comparatively few) he comes to, and

to help him by directing his attention in both the reading and transcription lessons to peculiarities and departures from type.

Reliance on the oral spelling lesson and the silly spelling rules is unnatural, illogical, and fatal.

As soon as the boy can read intelligently he must be taught to read *intelligibly*. Directly he can say, "I saw a fat cat with a rat on the mat by my hat and bat," he must say it *with expression*. It must not be a series of noises jerked out in a monotone with the regularity and precision of a metronome. He must be taught to read it in a conversational voice, and if he finds this difficult at first, the teacher should say to him in the vernacular, "Put your book down, look at me, and tell me (in your vernacular) that you once saw a fat cat with a rat on the mat by your hat and bat". When the boy has made the statement in a natural and expressive manner in his natural, *conversation* voice, the teacher should make him read the sentence again in English with similar expression and voice. He must, moreover, give a great deal of pattern-reading and insist upon a close imitation of his pattern. He must not leave any sentence until he is satisfied with the pronunciation, enunciation, and articulation, as well as the expression of every word.

He will be greatly helped in securing good intelligible reading if he pays great attention, in the earliest stages, to phrasing, or the proper placing of the words in groups—such groups as would be chosen by a person giving out dictation for example.

The above-mentioned sentence cannot be read with expression if, without phrasing it, the boy reads:—

"I | saw | a | fat | cat | with | a | rat | on | the | mat | by | my | hat | and | bat."

instead of:—

"I saw | a fat cat | with a rat | on the mat | by my hat | and bat."

In the earliest stages the phrases may be marked in the reading-books or on the blackboard as well as indicated in the teacher's pattern-reading. Later the children must be taught to rely on punctuation.

In the lower classes after the first year, the reading lesson should proceed as follows:—

New and difficult words occurring in the selected passage should be written on the blackboard (before the lesson) and explained. Attention should be drawn to any peculiarities of form. Boys should be made to put them into sentences and to use them in conversation with the teacher. And their meanings should not be written in notebooks.

Any model or picture bearing on the subject-matter to be read, and calculated to rouse interest and facilitate the presentment of ideas, should be introduced.

The teacher should then read the first paragraph very distinctly, exaggerating anything to which he wishes to draw attention. He should then read it phrase by phrase, each phrase being repeated by the class after the teacher. While this is being done the teacher should stand behind the class and see that every boy points to each word as he says it, or there is a danger of the class merely repeating the words after the teacher without reading them.

Next, the class should read the paragraph simultaneously, straight through, and then individual reading should commence—not straight round the class but on a definite plan by which one or two bad readers follow a good one, and by which the inattentive, lazy, or backward boy gets frequent exercise.

It is a good plan to insist upon mutual correction, either immediately, or when the reader has finished his paragraph. When several errors are made in one piece and have been corrected by the class, the boy should be made to reread it with a warning not to repeat any of the former mistakes.

When a teacher is a good disciplinarian and his boys have the right spirit, he can increase the opportunities for individual work by dividing his class up into half a dozen small ones, each in charge of a good reader who sets a pattern and has it imitated by each of his boys in turn, while the teacher passes round listening and correcting mistakes. With a weak disciplinarian, however, the plan may only result in temporary Bedlam.

Simultaneous reading, like simultaneous recitation, is good, in that the whole class is being exercised instead of one boy, nervous boys can get exercise without being hindered by their nervousness, the teacher's pattern-reading is taken advantage of by all, and bad readers are helped along and encouraged. It is bad in that it is

noisy, it offers a chance to the shirker to shirk, it is unnatural, and it renders the correction of individual errors difficult. It should be sparingly used.

Time should be left at the end of every lesson for conversation between the teacher and class, with the object of giving exercise in oral composition. Nor should the teacher consider (or be put in the position to be obliged to consider) that he has got to "do" so many paragraphs or pages in a certain time. What he *has* got to do is to teach boys to read English of suitable difficulty with ease and fluency resulting from comprehension, and to talk about what they have read.

As boys go up the school and become more and more fluent and capable in the art of reading aloud, this should be less insisted on, and ability in silently reading and *understanding* new matter should be more insisted on. It is better for a boy to be able to read and understand (with the help of his dictionary, if necessary) a page of the book of some fine writer, or the leading article of some standard newspaper, than to be able to rattle off some familiar paragraph in the class-reader (for the hundredth time perhaps).

In addition to the value of what is read, this exercise of silent reading is a most important one by reason of the fact that it is calculated to develop a love and habit of reading in after-life, that it encourages self-reliance, and fosters the inclination and ability to "find out for oneself," that it provides a constant "something to do" when the work of the moment is finished in other lessons, that the quick and capable boy can get ahead unhampered by the slower ones, and that it renders the preparation of the history, geography, science, and similar lessons easier.

And continually, and at all stages, the teacher should ask at the end of every paragraph (or every piece of silent reading), "Is there anything that any boy does not understand?" and he should not only encourage questions in every way, but should punish any boy whom he finds remaining in wilful ignorance of any meaning rather than take the trouble to ask. The teacher's proper attitude is, "Find out for yourself by asking me. You are here to learn and I am here to help you," so that he may ENCOURAGE SELF-TEACHING in this as in all other lessons.

CHAPTER XIII.
THE TEACHING OF WRITING.

“Writing maketh an *exact* man.”—*Bacon*.

“A person cannot spell by thinking how a word sounds, he must recollect how it *looks*.”—*Parkhurst*.

“Since hand writing is by far the most universal and intellectual form of manual exercise, it inevitably follows that ambidextral upright penmanship must be the most effective, reliable, and valuable of all our brain-building agencies.”—*Jackson*.

“To involve approximate equality in the two hemispheres of the brain, as well as full practical convenience, the use of the left hand must include writing as the most important element.”—*Sir William Gowers*.

“I was invariably able to show a distinct parallelism between the improvement in the power of articulation and improvement in writing with the left hand.”—*Dr. Church*.

“The arguments for upright writing are incontestably strengthened by some facts I have lately discovered. Slanting writing is itself pathologic, or produces pathologic results of many kinds.”—*Dr. Gould*.

CHAPTER XIII.

THE TEACHING OF WRITING.

“What is worth doing is worth doing well.”

To come upon a fairly well written paper in the course of reading, say, a thousand Indian matriculation papers, is like coming upon a pool in the desert. The very great majority are wretchedly written, and a considerable number are all but illegible. Many are worse written than they should be if the writer had been blindfolded and had used his left hand.

Much of this is due to the backless benches described elsewhere, and to the fact that, being brought up to regard examinations as the standard and the goal instead of as a mere test, the Indian student loves to scribble down every possible word uttered by the dispenser of facts at a tremendous pace. More is due to faulty teaching, or a total lack of teaching, of the art of caligraphy.

To give a boy a copy-book, and to say, “Write in it,” is not to teach writing. There must be a methodical system, and a graduated course of exercises in the formation of parts of letters, and then of whole letters, before the boy writes whole words. To see that a boy takes his pen off his paper in the middle of a word, and makes the letter “o” backwards, is to see that he has not been taught to write.

Setting aside the mere utilitarian question of the importance of good handwriting in commercial life, and its being a means of livelihood (for we are not concerned with making clerks, but with making men) the fact remains that when writing is not properly taught (and good writing regularly insisted upon) a valuable means of mental, moral, and hand-and-eye training is neglected.

A boy cannot be trained to always write as well and neatly as

he can, without being trained mentally and morally in observation, judgment, attention to detail, care, perseverance, and tidiness ; and physically in skill, accuracy, and freedom of hand and eye. Careless, untidy, feeble, illegible writing not only indicates a similar condition of mind but induces and confirms it. Writing is supposed to indicate character. Whether this be true or not, slipshod, careless, unformed writing does not favourably prejudice the reader in judging that of the writer. Nor does one suppose that the school whose general handwriting exhibits these characteristics is likely to be entirely free from them in other directions. What is worth doing is worth doing well, and on *all* counts good writing should first be taught and then insisted upon.

The first essential of *good* writing is perfect legibility, the second is rapidity, and the third is correctness of form. Writing may be legible and beautiful and may have been done so slowly as to be useless for practical purposes ; it may be legible and rapidly written, but, owing to back slope or squareness, be very ugly ; it may be attractive in appearance and rapidly written, but be illegible owing to bad spacing and to floridness. To acquire all three should be the writer's ambition, but it is useless for him to endeavour to acquire them simultaneously.

The teacher must first insist on correctness of form ; legibility and rapidity will follow.

Nor must he expect to get good writing from his pupils while his own, on the blackboard, is a weak illegible scrawl. As in everything else, the teacher must be a model for his class in this respect, and his set blackboard copies must be specimens of copper-plate writing, and his ordinary quick writing thereon must be better than could be expected from boys writing dictation or notes fairly rapidly on paper. And supposing the teacher is (as often happens) a bad writer, both on paper and on the blackboard, what is to be done ? He must become a good writer as speedily as possible, and teach himself to write well before he teaches others.

It is quite a common thing to find that in the schools attached to the Roman Catholic convents in India, one style of writing (and a very good one) is prevalent throughout, so that all the

papers written in an examination by the girls of one school are very much alike, and the pupils of various schools can be grouped according to their schools, simply by their writing.

Without discussing the merits of *uniform* as well as *good* writing throughout a whole school, it is proved by this uniformity that the children of the convent schools have been carefully taught to write, and have not merely picked it up anyhow. Also that they have not had a perfunctory copy-book lesson once a week (consisting of the distribution of the books, the writing of six lines, with intervals for social converse by the children, the collection of the books, and their hasty initialling by the teacher) and been allowed to scribble and scrawl in pencil for the rest of the week, in notebooks balanced on the knee.

For a boy to write anything, at any time, worse than he could have done it, due regard being paid to the need for haste, should be a punishable offence, and considered an exhibition of impudence, laziness, and indifference.

The first thing to teach the beginner is how to sit, and the second thing is how to hold the pen.

Both should be *natural*. Bad unnatural posture means bad health. Bad unnatural holding of the pen means bad writing.

With regard to posture, the boy should sit square and upright, facing straight to the front, with his shoulders parallel with the edge of the desk. He should not cuddle the paper with his left arm, try and twine himself round it, get to one side of it, and put his head almost on the desk. He should sit naturally and comfortably, have plenty of room, and rests for his back and feet. Nor should he be allowed to crush his chest against the edge of the desk. Years of writing in a bad position are responsible for curvature of the spine, roundness of shoulders, narrow chest, and short sight.

With regard to the holding of the pen, it should be held with the fingers in exactly the position *which they naturally assume when the arm hangs idly at the side, and the hand is empty*.

If we stand with our hands hanging idly, and unconsciously as it were, the tips of the thumb and first two fingers come in contact, the other fingers are bent and the hand is partly closed.

The teacher should make the boys stand up with hands hanging empty by their sides and should draw their attention to the fact that their hands are in the position above described. They should then be made to stand with hands hanging as before, but holding the pen between the thumb and first two fingers.

They should then sit and place the hand on the paper, maintaining the same relative position of thumb and fingers.

Plenty of "position drill" in correct sitting and pen holding should be given before any writing commences, and the teacher should see that the two points of the nib press evenly on the paper, and that the other end of the pen points over the right shoulder. Also that the knuckle of the first finger is not stuck up, that the pen is being held lightly and not gripped as though it were a spear, and that it is held at the right distance from the nib.

The first writing lesson should consist of the making of straight sloping strokes between ruled lines. It is by no means easy (and it is very important) for children to learn to make these strokes straight, parallel, and even, with no ragged edges, and of uniform and equal thickness. When they can make them correctly downwards, they should learn to make them upwards from the bottom line to the top, and thinner than the down-strokes. This stroke exercise should be continued until the class can make them neatly, quickly, and regularly, and alternately up and down.

The curve should next be introduced and the class taught to make the form *7* as though commencing the letter *n*. Care should be taken to see that the curve is comparatively thin, and the stroke comparatively thick. Nor must the curve be allowed to degenerate into an acute angle, but must be kept well rounded. The blackboard must be in constant use, and every boy must be visited and taught in turn. The next step is the introduction of the lower curve, and the letter *i* must be practised. When these two combinations of the stroke and curve are well done, two curves should be joined as in the ends of *n*, *m*, etc.

When the form *v* is well done, with good curves and varying thickness, the letters of the alphabet should be practised in the groups *i*, *u*, *t*, *l*, for stroke and curve, and *n*, *m*, *p*, *h*, for double curves. The *o* is the next form to practise, and a good

deal of trouble must be expended in seeing that it is properly done. Not only must the teacher use the blackboard freely, but he must see every individual boy make an *o*, and watch that he *begins and ends in the middle of the right-hand side*. When plenty of time has been devoted to the *o*, and it is well done, the letters *o*, *a*, *d*, should be practised, and the teacher should satisfy himself, by watching in each case, that every boy starts his *a* in the middle of the right hand side of the *o*, comes round to the same point closing the ring, goes on up to the line above and down for the final stroke and curve *without taking his pen off the paper*. The letter *c* may next be taken, and then a lesson on the long loop *l*. When this is mastered both upwards and downwards, the letters *i*, *g*, *y*, and *f* should be taught and practised. The crotchet *h* should next be taken and the letters *b*, *r*, *v*, *w*, exhibiting it. The remaining *q*, *e*, *k*, *s*, *x*, *z*, should be taken separately.

When all the letters of the alphabet are well done individually, the work of writing consecutive joined letters should begin. If the teacher chooses to do so, he can commence this stage with a series of joined curves and strokes as in *m* thus: *mmmmmm*, following this with a series of joined strokes and curves as in *w* thus: *uuuu*, and concluding with a series of joined double curves as in *v* thus: *vvvvvv*. Next, he may practise the joining of *intl*, *nmph*, *oad*, a series of *c*, *jgyf*, *brvw*, and *qeksxz*; and after that, commence the writing of words. Capital letters should follow gradually. As soon as the class has reached the stage of writing *words*, the writing lesson should be co-ordinated with the reading and English lessons, and should consist of transcription from the blackboard of phrases learnt in the conversation lesson and from the reading-book of those learnt in the reading lesson.

In correcting writing exercises the teacher should use red ink, and put his line where the boy's line should have gone, that the latter may see his error. The teacher should also always draw attention to the fact when strokes are not *parallel*, by drawing lines through them and exaggerating their divergence. Boys must be trained to look at the copy when writing; and, when he is correcting, the teacher must constantly ask, "Is this like the copy?"

"Why not?" "Now make it again exactly like the copy," and so on, in order to form this habit.

When the class can write copies correctly and legibly in their own time, the teacher should introduce the speed element by having a copy written in a certain time, at the expiration of which all must stop, and only those who have done a certain amount receive marks. This exercise for introducing speed with legibility and correct form is important, for it is quite useless to have elaborate copy-writing done with extreme slowness in the copy-writing lesson, and have vile scrawl in all other lessons when time is an object.

The copy-book lesson should be retained throughout the school, and marks should be given for handwriting and neatness in *all the written work that is done* from Standard I to Standard VII. In fact, no paper should be marked at all that is not written to the best of the boy's ability in the time at his disposal.

It is a good plan to pin the best written exercise on the wall, and to leave it there until some other boy has done a better one.

In the upper standards, there need be no insistence upon all children retaining the same style; but there should be insistence upon reasonable clearness and beauty of penmanship, not in special writing lessons, but in all the writing work of the pupils. A system is bad which allows a boy to be marked "excellent" for writing a special exercise, if the same boy's "science notes" or "history notes" are as slovenly as they can be.

The excellence of a boy's writing must be judged from his ordinary style; just as the excellence of his behaviour or of his speech must be so judged. Time tables are useful and necessary, but they are dangerous the moment they suggest that "writing" need only be considered in the "writing lesson". This remark, however, only applies to the upper standards; we cannot expect little children to be judged in the same way; they are but learning the art, and they must, to some extent, learn it in isolation from other subjects.

If the teacher, however, feels that, even in the upper standards, there should be opportunity for a little fancy writing, the best plan is to provide each child with an exercise book—with a special cover, perhaps, or with a cover that the pupil may design for himself—and allow him to enter in this book any passages, quotations, poems, facts, drawings, etc., of special interest, and to enter them *in his best possible style*. Such a writing book will stand in useful correlation with the rest of the school subjects, and may become an object of pride and affection, and one that the child may retain to the end of his life.—*Hayward*.

The DICTATION lesson affords a very good test of whether the

class is able to combine rapidity with legibility and good form, in writing.

For other reasons it is a very important exercise. It tests the ability to spell the words learnt in the English reading and transcription lessons, and, moreover, it teaches as well as tests. It helps the composition lesson and it has an undoubted value in training the ear as well as the eye, and in inculcating habits of careful attention, neatness, accuracy, and quickness without hurry.

It should never be allowed to take the place of transcription, copy-writing, or composition, but it should never be omitted.

A good plan in the junior classes is to have the pieces already used for transcription and copy-writing done a second time as dictation. Later, longer and more difficult pieces should be dictated after careful preparation, and, later still, "unseens" should be utilized. In all three cases, of course, most careful correction should follow, and every mistake be so dealt with that it shall not occur again.

Before giving out an unseen piece, the teacher should read it through with careful pronunciation and expression, to give the general idea of the piece as a whole. He should read it a second time slowly, sentence by sentence, dwelling emphatically and with very clear articulation upon the difficult words. He should then let it be distinctly understood that he will on no account repeat anything when giving it out finally, and boys should be strictly forbidden to write down the first word of each phrase that he gives out *until he has said the whole phrase*. If this is not insisted on, boys will get into the habit of immediately writing the first word of the phrase directly they hear it, with the result that the concluding words are only subconsciously heard, and are forgotten by the time the first word is written. At the end of the actual dictation, the piece should be read once more with a view to its proper punctuation by the class, this being otherwise somewhat difficult, as the phrasing by the teacher in dictation will not agree with the grammatical sentences. The method of correction will depend upon the size of the class, and the age and discipline of the boys.

With a small class, the teacher can pass round and correct each piece while the class is engaged in silent reading, transcription, or

some other work. If this is impossible, boys may change books and mark each other's work as the teacher writes out the piece on the board, or may correct from their reading-books (if it be taken therefrom). The best plan, with a well-trained class, is for each boy to mark his own work. (Errors should be corrected and the proper spelling learned by writing out the word several times.) This last method is best because it puts the boys on their honour to some extent (and only the trusted are trustworthy, whether boys or men), and because the actual correction of the fault impresses the fact that it *is* a fault more deeply.

In any case the teacher must know exactly what is going on and must see that all mistakes are honestly dealt with, and the correct forms thoroughly learnt.

Note.—It is probable that upright writing is the best, and it is certain that ambidextral writers should be encouraged.

CHAPTER XIV.
THE TEACHING OF RECITATION.

“ God's prophets of the Beautiful
These poets were.”—*Browning*.

“ The acquisition of good poetry is a discipline which works deeper than any other discipline in the range of work of our schools ; more than any other too, it works of itself.”

“ By nothing is England so glorious as her poetry.”—*Arnold*.

“ Their sure foundations in the hearts of man,
Whether by nature, prose, or numerous verse,
That in the name of all inspired souls
From Homer the great Thunderer, from the voice
That roars along the bed of Jewish song,
And that more varied and elaborate,
Those trumpet-tones of harmony that shake
Our shores of England.”—*Wordsworth*.

CHAPTER XIV.

THE TEACHING OF RECITATION.

“Recitation should be indistinguishable from impromptu oratory.”

It is very rarely that one hears good recitation in Indian schools. This is mainly due to two causes, viz. the peculiar affection for monotonous chanting as of the Scriptures on the part of the teacher, and the frequent complete lack of interest in, and understanding of, the ill-chosen poems, on the part of the boys. These are helped by bad methods of teaching.

The farther the teacher can get away from the religious-hymn-chant ideal, the better it will be for his chances of success as a teacher of recitation. The regular accurate monotone is what is *not* wanted, and for his boys to be absolutely word-perfect is only the beginning, and not the end and object, of his teaching. Recitation is taught because it gives a moral, æsthetic, and intellectual training; its matter is of interest and importance because of the beauty of the ideas and of the words which express them; and its manner is of perhaps even greater interest and importance because recitation is an art, and the essence of art is performance.

The mere learning of the words can be done without the teacher's help; his part is to teach the best *expression* of those words, and the first step towards the perfect expression of them is the perfect understanding of them. Nor is this understanding to be given by a list of “meanings” written on the blackboard and copied into the notebook. They may enable the diligent scholar to give noble statements and fine synonyms to the examiner, but they will not help him to that complete understanding which is the first essential of good recitation.

Leave the notebook and the written “meaning” to the crammer,

and give comprehension and understanding by means of illustration, vernacular explanation, and description. Then let the class give you their own oral paraphrase. If a boy can paraphrase a verse he *must* understand it. Let them also express the idea of each verse in their own vernacular and you will find further misapprehension and ignorances to correct, or be further assured that the poem is perfectly understood.

When the words of the poem are being learnt by heart do not allow a simultaneous gabbling aloud, although you are not yet pretending to teach the actual correct style of recitation. Do not think, "They may as well mumble it over together aloud just to learn it by heart. I can begin the proper style when they actually know it and are word-perfect." If you begin with mumble and gabble there will certainly always be an element of mumble and gabble, in spite of all your exertions, to the bitter end. Why introduce what you will have to eradicate?

Let every word which is said by the boys from the very beginning be said in the best possible style, in imitation of your model. The very act of reciting after you, and to your pattern, will teach the actual words, and your class will arrive at word-perfectness quite as soon as they arrive at perfection of elocution, if not a little before.

When commencing a poem for recitation the following method should be followed :—

The first verse, or the first few lines (as few as contain some complete idea, fact, or episode), should be written on the board and very thoroughly and carefully explained, orally paraphrased, and orally estimated in the vernacular.

As soon as the teacher is convinced that the class really grasps the meaning of every phrase and word, he should give out the first line in his best style, and have it repeated frequently, in imitation, by the class, simultaneously at first, and afterwards by individuals. He must continually strive at getting the natural conversational voice, and at repressing the universal tendency to put on a strange, high-pitched howl (which is to be heard nowhere else, and at no other time). When a boy is "reciting" in this painful manner, the teacher should suddenly stop him and

ask him a question. The boy will immediately abandon the artificial voice, and reply in a natural, normal voice. The teacher thereupon points out to him (and the class) the difference between the noise he was just making and the conversational voice he is now using, and asks why there should be a special (and unpleasant) voice reserved for recitation.

The continual practice in saying the verse properly will go far towards making the class word-perfect in it, and if they are not so by the time they say it satisfactorily, the teacher, as said before, should *not* have it hastily gabbled over several times for the sake of having it learnt by heart. There is no great hurry for this; and the pronunciation, enunciation, expression, tone, rate, modulation, and rhythm, are far more important matters. Any weak spot in the verse (such as a general absence of emphasis on some important word) should be made right by constant attempts at correction before passing on, and coloured chalks and underlining on the blackboard should augment the teacher's efforts at exaggerated pattern recitation. When the class can say the verse fairly satisfactorily, both simultaneously and individually, the teacher should give a few minutes for *silent* reading with a view to memorizing, and then remove the blackboard and have the verse recited simultaneously by the class, and then by individuals.

The second verse or the next few lines should then be similarly treated, but no attempt at recitation should be made until every word, phrase, sentence, allusion, and expression is thoroughly understood. The first and second verses should then be taken together and in future lessons should be revised.

When the inevitable "sing-song" tone begins to appear with familiarity and word-perfectness, the teacher must check it and insist on the conversational voice. A good plan is to make the boy stop and tell the story of the verse in his own prose, and then make him tell it again, in verse, in the words of the poem, but retaining his prose voice and tone.

The ideal should be kept before the class that recitation should be said in such a manner that *the hearer supposes the reciter is speaking his own thoughts in his own impromptu speech*. It is a good plan to occasionally choose poems or extracts in which

there are dialogues or conversations, and make boys assume the parts of the speakers, as this tends to the acquisition of the conversational and natural voice.

The practice of simultaneous recitation is a good one inasmuch as the nervous boy, who is a terrified stammerer when reciting alone before the class, gains confidence and help from the voices of others around him, and is emboldened to "let himself go" and do himself justice. Moreover, during simultaneous recitation, twenty or thirty boys are being benefited instead of only one. It is a bad one if the class is allowed to disturb other classes and if idle boys are able to take advantage of it to do no work. Recitation, rightly taught, is a valuable exercise, and offers scope for both mental and moral development if desirable poems and extracts are chosen.

It trains and develops the memory (though all lessons are made to do only this in many schools), and it strengthens and develops the faculty of imagination in the hands of a good teacher. It develops the æsthetic faculty and intellectual discernment known as "taste," and, in its application to the right sort of poems, inculcates admiration for the virtues of courage, steadfastness, honesty, self-denial, etc., and so has a beneficial moral influence.

It is remarkable, however, how frequently the most unsuitable poems are selected for recitation by Indian boys. Why should they learn long extracts written in archaic diction describing English or Scottish scenery, or some phase of life and thought entirely beyond their ken, and foreign to their traditions and ideas? Surely young Indian boys have less concern with Wordsworth's "Ode to Duty," Gray's "Bard," Scott's "Lady of the Lake," Cowper's "Task," Gray's "Elegy," and sudden extracts from Shakespeare, than with *notional* poems of Oriental atmosphere and setting, such as "Jaffer the Barmecide," "Abou Ben Adhem," or "Sohrab and Rustam."

In choosing a poem for recitation, the teacher should be guided by the suitability of the poem to the class, its interest for children, and its scope for intellectual and moral development. It is quite common to find poems in use which have apparently been selected for their extreme unsuitability of diction, ideas, and treatment,

utter absence of all attractiveness and interest, and complete lack of scope for mental and moral training.

Another frequent and serious fault is that the poem chosen is not only worn threadbare, but its stale rags are used long after this. The poem is known by heart till the boys could almost say it backwards, it has been paraphrased, translated, explained, parsed, analysed, and written out until everybody is most heartily sick and tired of it. When recitation lesson comes round, a look of weary indifference or stony despair settles on every face, as the teacher leads off with a half-hearted and vain endeavour to say the first line as though there were anything fresh or interesting about it.

When a poem is thoroughly understood, perfectly known, and quite finished with as a means of mental and moral training, leave it at once, and begin a new one. There is no law, human or Divine or departmental, against learning a dozen or a score of poems, provided they are properly learnt and properly understood. If the teacher wishes to keep a *répertoire* for the inspector, an occasional revision of the earlier ones will keep them fresh in the memories of the boys.

Staleness and nauseating familiarity are educational crimes.

Needless to say, it is the teacher's duty to procure pictures, models, objects, or other illustrations which will tend to increase the interest of the class in the poem.

The recitation, "The loss of the 'Birkenhead,'" is quite a different thing to boys who have seen the picture bearing that name. Boys learning Mark Antony's oration will "feel" what they recite much more really if they have seen the picture of the death of Cæsar, and "The Revenge" will be a more vivid story to those who are shown pictures of Elizabethan ships, seamen, and naval warfare.

Let the teacher select his poem judiciously then, and let him remember that it is to be used for the good of the class, and not the class for the learning of the bare words of the poem, and let it not be forgotten that prose is sometimes as worthy of recitation as is verse.

There are several principles of selection which, after considerable observation of the "recitation" lesson common to our schools, I would especially emphasize. These principles (which occasionally clash) should always be applied with caution; indeed, there are circumstances which may justify the abrogation of each of them. For example, a school which specializes in nature study, a school situated close to many interesting historical buildings, or a school with distinctive pursuits or needs, may rightly use certain poems which, in other schools, would be only moderately suitable. But the doctrine of "apperceptive interest" covers all such cases.

The first principle is that the metrical and rhyming element should be prominent in the poetry selected. Blank verse and rugged metres should not be extensively employed, though there is no doubt a legitimate, though limited, place for them in the higher classes. Children, like the primitive men whose representatives they are supposed to be, appreciate rhythm and rhyme, and these in obvious forms. The Fröbelians have employed this fact in the dances and "actions" of their songs. Elusive kinds of poetry, on the other hand, presuppose careful cultivation of taste. Similar principles apply to music and painting; for example, we do not expect children to appreciate elaborate musical compositions rich in dissonances; we expect them to appreciate simple and recurrent themes. Walt Whitman is scarcely a suitable poet for the Primary School.

Another principle of the greatest importance is that of correlation. That this may be "overdone" I do not doubt; but, generally speaking, the principle is at present more honoured in the breach than the observance. In other words, the piece, or pieces, chosen for "recitation" may have little or no bearing on the subjects taught in the school.

A further thought. Why not a few *prose* selections; a few passages from an historic speech of Cromwell, Pitt, or Burke, or even of more recent statesmen? Boys and girls are frequently fond of declamation, and there is no reason why this fondness should not be employed, more especially in schools whose pupils remain till sixteen or after. Burke's words beginning "Society is indeed a contract" (though from a book, not a speech), and the younger Pitt's last challenge, "England has saved herself by her courage; she will save Europe by her example," are instances chosen almost at haphazard. A few great lines from Froude, Macaulay, or other prose writers (preferably, though not exclusively, historians) may also be learnt by heart by some, or most, of the pupils.—*Hayward*.

CHAPTER XV.

THE TEACHING OF COMPOSITION AND ESSAY- WRITING.

" In Composition, intelligent thought is the object aimed at."

" *Original Composition* means the rousing of observation, the giving of the seeing eye, and training the mind to make an harmonious picture out of what it sees, so that others may know it."

" In looking over Composition remember that an exercise full of *word* mistakes, which shows attention to teaching, and earnest effort to get out the thought and spirit, may be a very promising exercise, and that an exercise without a fault in Grammar may be most despairing. Thought comes first."
—*Thring*.

CHAPTER XV.

THE TEACHING OF COMPOSITION.

"Every one can be taught to have the seeing eye, which is the beginning of all original Composition."

A VERY bad and very common method of teaching composition is that by which the subject is entirely neglected until the scholar is in the Fifth Standard, when a story is suddenly read to him, and he is asked to reproduce it. In the first place this is beginning in the middle, and in the second place it is not a genuine exercise in composition. Composition should be original, the boy's own expression of his own thoughts in his own language. The rewriting of a story immediately after he has heard it, is, particularly with the Indian boy, a matter of memory, and involves little, or no, *creative* effort. The object of teaching composition is to give a training in self-expression and "articulateness," to encourage thought, to give fluency and facility in English, and to exercise the creative faculty. This is not done by making a great effort of memory to retain what is heard twice, and by dashing into the midst of it and reeling it off while the words are still fresh.

Even where the proper method of this story-reproduction is followed, the system is entirely wrong which takes story-writing as the *starting-point* in teaching composition.

Composition, like paraphrase, should begin as soon as the student can read, and should be oral. (Every time a boy answers any question in class by framing a complete sentence, he is engaged in oral composition, and teachers should always insist upon answers being given in the form of a complete sentence).

The first definite lessons in oral composition should be given as

exercises in the synthesis of sentences, side by side with the lessons in analysis. For some mysterious reason, great attention is generally paid to analysis, while synthesis is entirely neglected. Synthesis of simple sentences is the beginning of composition, and not the remembering of somebody else's story and rewriting it. The composition lesson is bound up with the grammar lesson, and what is learnt in grammar should be at once applied in Composition. As soon as the scholar thoroughly understands the function of the verb he can commence composition by the synthesis of simple sentences containing only subject and predicate. Next he can add the object, and then extensions of time, place, manner, etc.

The textbook used in class should contain copious exercises for *oral* performance, in which he first picks out predicates, subjects, objects and extensions; others in which he then supplies subjects to given predicates, predicates to given subjects, objects to given subjects and predicates, enlargements to given subjects and objects, extensions to given predicates, and complements to given verbs of incomplete predication.

Later, the combination of two or more simple sentences into a single simple sentence should be attempted, and then the combination of two or more simple sentences into a compound sentence. Next the combination of two or more simple sentences into a complex sentence should be taught, and then into a mixed sentence. At this stage, plenty of miscellaneous exercises in the combination of sentences should be given. By following this method the future builder (of essays) is learning the use of his tools and materials, instead of being suddenly invited to build straight away, without any knowledge of the science and art of building-construction.

When the class has arrived at some degree of facility in the formation of sentences, the teacher should deal with the conversion of sentences. First, the conversion of a simple sentence into a compound sentence and *vice versâ*, of a simple sentence into a complex sentence and *vice versâ*, and of a compound sentence into a complex sentence and *vice versâ*.

Next the conversion of sentences to and from the active and

passive form, to and from the interrogative and assertive form, the affirmative and negative, the exclamatory and the assertive, etc., should be undertaken.

When this conversion is thoroughly understood, the mysteries of the direct and indirect forms of narration should be grappled with ; then the commoner figures of speech (Simile, Metaphor, Personification, Allegory, Irony, Antithesis, Hyperbole, Climax, Anti-Climax, Synecdoche, Metonymy, Litotes, Apostrophe, Alliteration, etc.), though, of course, their *names* should not be insisted on ; and, after this, simple paraphrase, and careful common-sense training in punctuation, and the use of capital letters.

With such a grounding as this spread over his two years previous to Standard V, the student is in a position to obtain some benefit from the story-reproduction system generally adopted at this stage. He can *compose* instead of *remembering*, and there is some chance of his work being original instead of second-hand. But even so, the teacher of Standard V should not be content to read a story once a week and have it reproduced, as an education in composition. He should still endeavour to make his lesson partly oral, and if he can get a boy to stand up and briefly narrate some event, or tell some original story to the class, he is doing something far more valuable.

A highly trained parrot could do "composition" of the average story-reproducing type, if the story were read to him often enough ; and if the pupils are to do genuine and original composition *they should not have the story at all*, but the *facts* of the story. If they merely have the facts of their theme *they* must supply the language. When the story is read to them two or three times they get both the facts and the language provided for them, and their hypertrophied memories generally enable them to retain both for the short requisite time. This is in no sense composition, and it is for this reason that the placing of a picture before the class and asking them to write its story, is an infinitely better plan. Why should memory play any part in what is supposed to be a work of creative originality?

Similarly a good subject for the composition lesson is the writing of an account of an experiment performed in the science lesson,

of some recent school event (sports or prize-day, etc.), or the description of some holiday. The boy should be in no way troubled as to the *facts*; they should be clear and obvious, so that he can concentrate upon the plain and simple recording of them, and his expression of his views concerning them. The language is everything, the facts nothing.

Where the story-reproducing system has to be followed the following method should be adopted :—

The teacher should select some story which will interest and appeal to the class by reason of the familiarity of its atmosphere and sentiment. There is no need to read of some action (of a person foreign in style and sympathy) which is obscure in purpose and result, and puzzle the class at the outset. Having found a suitable one, he should read it the prescribed number of times, and then put the book away, and let as long a period as possible elapse between his reading and the writing in order that memory may be able to play a minimum part when the boys are choosing their words.

Early in the year when the teacher is rather teaching than examining in the art of story-reproduction, he should have the story acted by some of the boys in front of the class, taking an important role himself.

If he chooses a story containing three or four characters (a judge, pleader, plaintiff, and defendant, for example) this is easily done. Great interest is displayed by the class as well as by the actors, and as each of the latter plays his part he is engaged in oral composition.

Anyone who has attempted the task of teaching story-reproduction to beginners in Standard V knows how little of the story the class grasps in hearing it twice read, and how entirely the majority will miss the point. This is impossible if the story be dramatized and enacted (as it can be in a very few minutes), and after seeing the "play" the class has no trouble with the *facts* of the story and can concentrate upon the *language*.

The teacher should next elicit the salient facts of the story from the class and tabulate them on the board, but make no further attempt at giving any kind of connected narration of the story.

The first fact should then be considered, and individuals called on to tell that part of the story which the fact epitomizes, in carefully chosen simple words, and any use of the original words of the story should be sharply checked. The other facts should be similarly dealt with, and the class should then write their composition, the "facts" being left before them on the board. By this method there is some hope of making the exercise one for the creative faculty rather than for the memory. The exercise will be greatly increased in value if the teacher always insists upon having some original personal opinion added at the end of the composition, or some moral, or inference, drawn from the story. This augments the reality and originality of the work, and is the beginning of essay-writing.

In composition, as in all other lessons, disciplined self-expression and originality are to be encouraged in every way. The making up of a story about something that never happened, and some one who never lived, is a far higher performance than the reproduction, however good, of a read story. The boy who tells tales of his own imagining to an appreciative audience of his school-fellows is a creative genius, and a higher product than the examination-wallah at the top of the class. In the far future, when the teacher is less shackled, hampered, and over-directed, the composition lesson may be largely one of original story telling. A pen is not essential to composition, nor are the uninteresting ideas of others. It is better to *aim* at being a Hans Andersen or a Grimm than at being an accurate clerk.

The composition lesson may be utilized for moral education by a judicious use of the stories read, and further by insisting upon the boys' expression of their own honest opinions, and by the teacher reading to the class the sound and the unsound deductions, opinions, and moralizings, and commenting upon them. All unctuous and priggish outpourings should be rejected, and commendation given to sound, honest, and sensible opinion.

It must always be borne in mind, moreover, that the finest training for good writing is good reading, and children must be encouraged to read to the utmost. The more a person reads, the better he will write, and there is no other way of acquiring "style".

An excellent plan with the matriculation class is to issue a good novel to each boy on a Monday, with the intimation that he will have to write an essay upon some aspect of it on the following Monday. This not only provides the material for a good class of essay subject, but inevitably improves the style, increases the fluency, widens the horizon, and increases the general knowledge of the boy.

A book is more carefully read and thought about, when it is to form the subject-matter of an essay; there is less superficial skimming, more appeal to the dictionary, more care in every way. It will, of course, depend upon the intellect and attainments of the boy, whether he is given a larger or smaller book, easier or more difficult, lighter or heavier in vein. In some cases only a portion of a book can be prescribed, but it is unquestionable that reading helps writing at any stage of the scholar's progress.

As a rule, essay-writing is not taught at all, for it can hardly be called "teaching" when a class is ordered to write an essay on "Civilization," or "Morality and Progress" (immediately after the end of its story-reproducing stage), and having floundered through a page of drivel, is told how dull and unoriginal it is. How can essays be expected from a class when they know nothing of the art of composition (beyond remembering and writing out a read story), and when they are given an idiotically abstruse subject about which they know nothing, and upon which they cannot hold any views whatsoever?

Before a fair essay can be produced, the class must be trained in essay-writing, and must be given a subject about which they know something, and upon which they may be expected to hold an opinion. *The essay should not be an examination in facts as well as an examination in composition.* The facts should either be fully supplied, or the subject should be one with which school-boys should be perfectly familiar.

When scholars have reached the class in which the essay is prescribed, the teacher should make the first few lessons entirely oral, and should aim at impressing the great importance of a thorough purview and arrangement of the matter beforehand. The commencing of an essay before a précis, outline, or index, has

been drawn up, should be strictly prohibited (and when boys write their essays unaided by the teacher, it should be the rule that the précis be shown up with the essay, and written at the head of it, as are the contents of the chapters of many books).

A subject having been selected which is both familiar and interesting to the boys, the teacher should invite suggestions as to its treatment, and accept those which will give a logical and consecutive series of paragraphs. Each paragraph should be represented on the board by a word or phrase, and these headings should be in a column, and numbered 1, 2, 3, etc. Headings may be further subdivided, and lettered, *a*, *b*, *c*, etc., until a fairly good skeleton of the essay appears.

The essay should then be provided orally by the class, boys being called upon to compose sentences suggested by the notes of the précis, and their productions criticized by others.

When several essays have been worked out orally thus, the teacher should notify his intention of setting a certain subject on a certain day, and instruct the class to prepare their précis in the interval. There is far more educational value in the writing of an essay after such a preparation, than there is in sitting and sucking a pen while wondering what facts can be remembered to form the précis of some suddenly given unknown subject. A boy cannot write an essay if he has no material to write about, and no examiner who knew his business would deliberately increase the difficulties of composition by adding difficulties of material. If the English boy finds essay-writing a difficult matter, how much more so must the Indian boy, writing in a foreign language.

It is essential that the teacher should make him realize that the drawing up of a good and full précis is not a waste of time. He must be taught to consider that ten minutes out of half an hour is by no means too much to give to preliminary thinking. Particularly in essay-writing is it true that, "Well begun is half done," and if at the end of one-third of the allotted time the boy has got a good "skeleton," he will be able to clothe it with flesh in the remaining two-thirds.

The essay will be of a much better type if, during the story-reproduction stage, the teacher has insisted upon the addition of

some original comment upon the story. The boy will be accustomed to embarking upon original thought and expressing it in his own words.

After the oral-essay stage, suggested above, a few essays should be written in *letter form*. It frequently happens that a boy who does a wretched set essay in class, writes a very decent letter home. The reason is that when writing home he is expressing his own thoughts, and not the thoughts (or what he imagines to be the thoughts) of others. He is giving simple and natural expression to his natural ideas, to actual facts, or to real personal views. When he is writing the set essay on some abstruse and difficult subject, he is doing something quite different if (as is usually the case) he has not been properly taught. It is therefore a good plan to tell the class to write a letter to the teacher describing some recent event witnessed by the boys. Later they should be made to write an ordinary essay on the same subject.

To add realism, and to help the boy to attain the mental position desired, it is a good plan to actually issue envelopes and note-paper (foolscap folded into the shape of note-paper will do) and have the letter written (in class) in proper form, and then put in the envelope, and correctly addressed to the teacher. (Anything a little out of the weary round of routine is commendable.) A good plan, too, is to have an essay-competition during a vacation, by having a letter written and posted to the teacher, describing the mode of spending the holiday.

CHAPTER XVI.
THE TEACHING OF PARAPHRASE.

“ True work is not done by hunting for words and torturing them into place, but by changing the structure.”

“ Diction and Vocabulary are got by thinking of English synonyms, and putting the sentence into different shapes.”

“ Boys make their efforts a foolish struggle with words. ‘ What *word* can I get ? ’ and not ‘ *What is the best way of putting the sense ?* ’ is their starting-point. This leads to nothing. *Thoughtful understanding the sense* is the true start.”—*Thring*.

CHAPTER XVI.

THE TEACHING OF PARAPHRASE.

"A complete mastery of sense does the work."

It has been very foolishly and erroneously said that there should be no such thing as paraphrase, because it is hardly to be expected that a schoolboy will improve upon an extract from Shakespeare, Macaulay, or Milton. No sane person would expect it, or set an exercise in paraphrase with such an object in view. As with all other subjects of the curriculum, the proper object is the *training of faculty*, and paraphrase offers an excellent means of training Observation and Deduction. It also gives a training in Accuracy, Taste, Comparison and Judgment; it enlarges the vocabulary, improves the power of composition, teaches the values and niceties of expression, and encourages and develops the creative faculty in addition. It is, therefore, a peculiarly valuable exercise for Indian boys who are so fond of relying upon the memory and following the beaten track of others. All this, *provided it is properly taught*, and not made a kind of missing-word puzzle, in which the student crosses out the longer words of the original and writes what he supposes to be the synonyms of these words over the top. This method of synonymic substitution is not paraphrase but parody, and has no educational value whatsoever.

Paraphrase is really composition, and this fact must be kept before the scholars. The idea which must be present in their minds is not, "I have got to mangle this piece here and there, by adding and subtracting, until it looks rather different," but "*I have to write a piece of composition. The facts are supplied in the ex-*

tract, but the treatment must be mine." It must be impressed upon them that they must—

1. Find out the author's exact meaning, and
2. Express that meaning clearly in their own words.

To do this they must first study the extract as a whole, secondly, study it sentence by sentence, and finally, word by word. Having done this they are in a better position to commence transposition, the re-writing of the author's original words in plain prose order.

Having got the extract straightened out, the chief remaining difficulty lies in hard words and figures of speech. These should be annotated, their meanings being gathered, so far as possible, from the context, derivation, analogy, etc.

The actual paraphrase should now commence, each complete sentence being dealt with in turn. (A sentence is a complete thought expressed in words. The author's complete thought must be realized, and it must be clearly and briefly expressed in the words of the scholar.) Having completed the extract he must leave the original, and turn to the improving and polishing of his own rendering of it. The great importance of this last step must be impressed, for what is wanted is not a crude literal *translation*, but a piece of the best *composition* that the child can do.

The teacher must train his class, from the first, to consider the actual meanings of isolated words in the original as of very secondary importance. The value of the exercise decreases in proportion as the student's method is one of individual substitution. He must proceed from the general to the particular, from consideration of the whole to consideration of the paragraph, from the consideration of the paragraph to that of the sentence, from that of the sentence to the phrase and the word. He must not begin straightway at the word and its synonyms, if he is to obtain any mental benefit. In the actual writing, change of construction, change of parts of speech, change from active voice to passive voice, from direct speech to indirect speech, etc., is far more important than mere isolated change of words by synonymic substitution.

By the latter method he appreciates nothing and creates nothing. By the proper method he first appreciates the creations of others,

and then exercises his own creative faculty. He has a valuable mental exercise before he writes a word of his paraphrase, he exercises observation and deduction before he commences the exercise of his creative faculty.

Let us suppose that the teacher is giving a first formal lesson on paraphrase and is taking the following extract as the original :—

*Here rests his head upon the lap of Earth,
A youth to fortune and to fame unknown,
Fair Science frowned not on his humble birth,
And Melancholy marked him for her own.*

*Large was his bounty and his soul sincere ;
Heaven did a recompense as largely send ;
He gave to Misery all he had, a tear,
He gained from Heaven ('twas all he wished) a friend.*

*No further seek his merits to disclose,
Or draw his frailties from their dread abode,
(There they alike in trembling hope repose)
The bosom of his Father and his God.*

Having written the extract upon the blackboard or had it found in the reading-books, he should have it read aloud simultaneously by the class two or three times, and then individually by two or three boys. He should next have each sentence read aloud two or three times and finally draw attention to “lap of Earth,” “Melancholy,” “bounty,” “recompense,” “frailties,” “bosom of his Father,” etc.

The class will then have a sufficient idea of the author's meaning to be able to rewrite the extract in plain prose, using the author's own words (transposition). Individuals should be called upon to transpose each sentence orally, and when this is done correctly, the teacher should write the transposed sentence on the board. The extract will then appear thus :—

1. A youth unknown to fortune and to fame rests his head here upon the lap of Earth,
2. Fair Science frowned not on his humble birth,
3. And Melancholy marked him for her own.
4. His bounty was large,

5. His soul was sincere,
6. Heaven did send a recompense as largely,
7. He gave to Misery a tear (which was all he had),
8. He gained a friend from Heaven (which was all he wished),
9. Seek no further to disclose his merits or to draw his frailties from their dread abode, the bosom of his Father and his God.
10. There they repose alike in trembling hope.

A proper understanding of the whole extract will now be much easier, and the class should read the transposition through aloud, simultaneously, once or twice. They should next read the three verses two or three times each separately, and next the ten sentences, two or three times each separately. The teacher should now help the class to gather the *general* meaning, and to elucidate the dark passages by questioning (and should make notes, on the board, of meanings elicited from the class) e.g. :—

Q. "What do you gather concerning this youth in the first place?"

A. "That he is dead, since the extract is written in the past perfect tense, and he is spoken of as being with God."

Q. "What sort of character did he bear?"

A. "A good one. He was poor, but honest and charitable, and God rewarded him."

Q. "What do you learn about him generally from the first verse?"

A. "That he was poor and obscure and of a melancholy disposition."

Q. "What does the second verse tell us about him?"

A. "That he was of a kindly nature, and felt sympathy for those in trouble, and that God sent him a friend as a reward."

Q. "What does the third verse say?"

A. "That we should not try to find out any more about his good or bad qualities, but leave them and him to the mercy of God."

Q. "What is the meaning of sentence 1?"

A. "A poor and obscure lad lies buried here."

Q. "If 'fair Science' did not *frown* upon his birth, but smiled, what do we suppose was the result?"

A. "That she befriended him and he was well educated."

Q. "To what is 'the bosom of his Father and his God' in apposition?"

and so on.

The class, having been led to discover the author's meaning for themselves, have done one half of the work and exercised observation and deduction. The boys can now proceed to exercise the creative faculty by composing a sentence containing the precise meaning of sentence 1.

The teacher should call upon a boy to do this, and upon another to try and improve upon it, and invite suggestions from the class generally. The best sentence actually given by one of the scholars (and not provided by the teacher) should then be written on the board, and the remaining nine sentences similarly dealt with. The class should then be told to write the paraphrase in one connected whole, properly punctuated, and to make any improvements and alterations which might seem desirable.

When an extract is being paraphrased as homework, or done in class without the teacher's help, the latter should insist upon the above method being followed, and should, in the early stages of progress, demand to see the transposition and notes of meanings (of sentences, phrases, and words), as well as the actual paraphrase. Otherwise he will get the easy and worthless synonymic substitution, instead of a genuine paraphrase, the outcome of thought and composition.

It is a good plan to let a few boys read their paraphrases to the class, and to invite comment. With advanced scholars a good plan is to have the same extract differently paraphrased by each boy twice, or even three times, as an exercise in style and treatment, that result being considered the best in which the greatest diversity is shown between the three paraphrases.

It must not be supposed, however, that paraphrase is to be regarded as a very difficult exercise which is not to be attempted until boys reach a certain class in the upper school. Oral paraphrase should be a common feature of every English lesson. When explaining the meanings of new words in the reader, the teacher should not be content to do the very thing he forbids the class to do in the paraphrase lesson—give mere synonyms. He should not only explain the word, but make the class *paraphrase the sentence in which it occurs*. The mere writing down of "meanings" or synonyms in notebooks is useless. Let the class clearly *understand* the meaning by means of explanation, illustration, and simile, and they will paraphrase the sentence quickly and intelligently enough. If they are only given a written meaning or synonym they can replace the word by its synonym and remain in absolute ignorance of the *meaning of this* "meaning" or synonym.

The writer once heard an Indian teacher explain, "limb" to young boys as "projecting portion, such as projecting portion of tree, projecting portion of body, etc." This was faithfully though inaccurately scribbled into the inevitable notebooks. The writer thereupon asked the class to paraphrase the sentence, "I have a broken limb". Some said, "I have broken off the projecting portion of a tree," others, "I have a broken projecting portion". No boy said, "I have a broken arm or leg," and they were obviously under the impression that "limbs" were the leaves, branches, roots, or trunk-corrugations of trees, save when they were the ears, noses, heads, fingers, or toes of human beings.

This is an interesting example of what happens when the teacher's object (as it too often is) is to have an explanation *which will look well in a notebook, and sound well when given to the examiner in answer*. If his object were to give a mental grasp and induce a mental process (and he forbade the scribbling in notebooks) he would be engaged in intelligent education, and future formal paraphrase would be a simple matter. The great difficulty of the present paraphrase lesson is due to the fact that boys are trying to *remember* instead of to *create*, to remember synonyms instead of to understand and reproduce.

Which is better and more scientific, that a boy should thoroughly understand the meaning of a word, phrase, or figure of speech, but be unable to reel off a glib cut-and-dried explanation, or that he should be able to do this, but not have the least idea as to what it all means?

One fears for the education in general, and for the paraphrase and composition in particular, when one opens the notebooks of a class and finds an almost illegible scrawl of misspelt legend to the effect that

man = anthropological biped,
beard = hirsute facial appendage,
dog = male canine quadruped,
limb = projecting portion of tree or human body,

and so forth, the "explanation" requiring more explaining than what it explains.

Less notebook and memory, and more observation and deduction in the reading lesson will greatly help the paraphrase lesson, not to mention the intelligence of the child.

Another important point to remember is, that whatever those who fanatically follow the Direct Method, *without a word of vernacular*, may say, it is a sound and sensible plan to appeal to the vernacular to assist in explanation of difficult English. Where your object is merely accuracy and fluency of words, be as direct as you please; but where your object is comprehension, do not hamper and hinder yourself by refusing to utilize this obvious and easy method of shedding light. If a difficulty can be made clear, or even only a little clearer, by the use of the vernacular, it is mere pedantic folly not to use it. Having made sure that the class fully understands the word, phrase, or sentence, demand an original paraphrase in the boy's own words. Never mind about the notebook.

If a boy can give a decent paraphrase he shows that he fully understands; he exercises his creative faculty, his power of paraphrasing and of composition is increased, and the act of paraphrasing impresses the meaning quite sufficiently upon his memory. What can be said for the value of the process of scribbling your cut-and-dried meaning in his notebook, and there leaving it?

Paraphrase then, should begin (orally) as soon as the student can read, and should continue as long as he studies the language. It should be regarded as a branch of composition, and should be so taught as to evoke, train, and develop the Observatory, Deductive, and Creative Faculties.

In the words of Principal Macmillan of the Elphinstone College :—

A passage is paraphrased when its meaning is expressed in different language from that employed by the author. A good paraphrase ought to convey the whole meaning of the original with as much alteration as possible in the words and constructions. To write a paraphrase is an easier task than the composition of an essay, in so far as it requires no original thought. All the ideas to be expressed are given in the original, and nothing has to be done by the writer of the paraphrase but clearly to understand the author's meaning and express it in good English of his own. However, there are peculiar difficulties in writing a paraphrase that have not to be encountered

in original composition. In the first place, it sometimes requires a considerable amount of intelligence and careful study to make out the meaning of such difficult passages as are to be found in the works of profound thinkers like Shakespeare, Milton, and Bacon. Even when the meaning has been mastered, a greater difficulty remains. The passages given for paraphrase are generally selected from those poets and prose writers who have the most perfect command of the English language, and may, therefore, be expected to have expressed their ideas in the best possible manner. This being the case, every change of words or constructions is likely to be very frequently a substitution of worse for better English. This is no doubt to a large extent true, and is sometimes urged as an objection against paraphrasing, as if it would naturally teach nothing but the composition of bad English. The objection is, however, more specious than real. It may be safely asserted that no student ever spoiled his English style by writing paraphrases, and that, on the contrary, many from this kind of composition have not only acquired the invaluable habit of carefully studying the meaning of the literary works they read, but also gained a mastery over the English syntax and vocabulary such as they could have obtained by no other means. Exercise in paraphrasing teaches the student in how many different ways the same thought may be expressed, and so enables him to select the best mode of expression when he reverts to original composition.

But it often happens that when we try to express the meaning in our own words, we find that we have unconsciously employed the very language and mode of expression used in the passage we had to paraphrase. When this is the case, we must just try again, till we have succeeded in getting words and constructions of our own instead of those in the original. It must be borne in mind that change of the construction must be aimed at as well as change of words. If we simply by help of the dictionary alter the words of the passage without altering the constructions, our paraphrase will be worthless, as it will not show that we have really comprehended the meaning of the passage.

CHAPTER XVII.
THE TEACHING OF HISTORY.

"History is Morality teaching by example."—*Sir Joshua Fitch.*

"The History of the World is but the Biography of great men."—*Carlyle.*

"As nothing teaches more, so nothing delights more, than History."—*Locke.*

"Every fairy-tale, worth recording at all, is the remnant of a tradition possessing true historic value."—*Ruskin.*

"Historical characters must seem to children *real living beings* whom they love or hate, whom they despise or esteem."—*Ginzol.*

CHAPTER XVII.

THE TEACHING OF HISTORY.

“ History is for the Imagination and for Morality, not for Memory.”

OWING to the almost universal substitution in this country of competitive instruction for education, due to the apotheosis of the examiner, History is one of the least valuable, instead of being one of the most valuable subjects of the curriculum. Probably no other subject offers such opportunities for combined mental and moral training and development as history. In the hands of the genuine educationist it becomes the means of awakening, strengthening, and disciplining the imagination, of exercising the powers of observation and deduction, and of arousing and developing the moral sense. Properly taught, it greatly assists the education of intellect and character: as it *is* taught, in the great majority of cases, it greatly assists the hypertrophy of memory, and does nothing more. The fault lies with examinations in general, and the examiner in particular, who asks for lists of dates, and names of dynasties. Where the teacher is compelled to supply vast masses of facts, and to insist upon their being swallowed (though never chewed, digested, and assimilated) in a short time, he has no opportunity, if he has the ability, to achieve mental and moral exercise and development.

The bare *facts* of history are its least useful part. Infinitely more true education of the mind and character could be given by a scientific teacher from the imaginary history of a country which never existed, than could ever be given by the ordinary crammer dealing with the actual facts of Indian or English history. Facts are but the tools to be used in the building of the mental and moral edifice. You cannot build a house *of* tools; you build it

with tools, and you cannot build the mental and moral edifice *of* facts, but *with* facts. When the house is built the tools may be thrown away and the house w^l not fall. When the educational edifice has been built, the facts may be forgotten, and the edifice will remain. A child may have a most valuable and excellent training in history, and hardly know a dozen dates at the end of it. Certainly his dealings with "Magna Carta" for example, would not leave him in a position to say it all off by heart, as can some of the victims of "teachers" of history, of lofty ambitions. Surely in history, if in nothing else, we might remember that the duty of the teacher is to train and benefit the mind and character of the child, and not to make him perform silly feats of memory.

The teaching of history should begin with the telling of highly interesting and dramatic stories, describing the historical events shown in a picture. There are cheap and excellent coloured pictures easily procurable for illustrating either an actual event, or for showing the dress, weapons, architecture, etc., of some particular period. The story should be followed by questioning, directed *not* to the finding out of what has been remembered of the story, but to the stimulation of the children's observation (of what the people in the picture are doing, etc.), and to the stimulation of speculation (as to what they are saying, thinking, or going to do). In other words, Interest is aroused by the story, Imagination is awakened by the picture, and the description, and Observation and Deduction are trained and developed.

The teacher should then proceed to invite comment and opinion as to the actions of the people of the story, point out how virtue triumphed, and vice was punished, commend the good and condemn the bad, and generally aim at character forming and moral training, without cant or hypocrisy. The Indian child loves a story, and the skilful teacher, freed from the necessity of cramming for examinations (as he is in the earliest stages) can make his history lessons, what all lessons should be, interesting and enjoyable, and beneficial to mind and character, and relegate facts to their proper place, as servants and not masters.

Whatever period of history is to be considered, should be broadly covered by a series of these stories, and at the next

stage by a series of biographies. No history lesson should ever be given without a map, and one or more pictures as a nucleus. Anything that serves to make the dead and gone heroes and heroines of history *real* and actual is very desirable. Try and imagine the difference between a lesson on Akbar or Queen Elizabeth, in which a map, portraits, pictures of events in the life, pieces of armour, specimens of signature, seal, hand-writing, etc., are shown, and one in which there is absolutely nothing but a dull teacher and a deluge of dry facts. The mind is worthier of attention than the notebook, and success in life than of success in an examination. What a boy *knows* of history will be *quite useless to him in after life*: the *training* he has got from it when properly taught *will be of the greatest use to him*.

The history lesson, above all others, must be a means and not an end and it *must* be made interesting. Teachers should note the statement of Anatole France: "I like the Iliad all the better because of what I have seen of the rude pottery of Hissalrik, and I appreciate the 'Divine Comedy' of Dante all the more because of what I have seen of the Florentine towns of the thirteenth century." Illustration, reality, vivid presentment, proceeding from the concrete to the abstract and from the known to the unknown are as important in the history lesson as in any other lesson.

The Indian teacher finds his syllabus ready-made for him as a rule, and must stick to it, but it is generally left entirely to him to choose his method of teaching, and allotment of time to portions. Even if he has little time and much to do, with the shadow of the examination upon him, he can still try to be interesting, to use all possible illustration, to combine his history with geography, and generally to put some flesh of fancy on to the dry bones of fact.

Where a teacher has got to cover the whole of Indian or English history in a given period he can follow one of three methods, the chronological, the regressive, or the increasing (known also as the "concentric" method).

By the first method he starts at the beginning and works steadily along to the present day in a series of reigns, dynasties, or "periods". This seems the obvious logical and natural plan

(and for that reason is most commonly adopted) but it is nothing of the sort.

In the first place the course, is rarely completed in the time, and the history of which the boys know least is often that of which they should know most—the history of their own and recent times. Secondly, the least familiar and least comprehensible conditions are taught first to the youngest boys who are least able to realize them. Moreover, in a sense, it proceeds from the unknown to the known instead of *vice versa*, and begins with a vague “two thousand years ago” (which no child can appreciate) instead of working back to it.

By the regressive method the teacher starts from to-day and goes backward to the dawn of history, and the great defence of this method is that it goes from the known to the unknown, from the familiar to the unfamiliar, from what is actually seen and experienced to what has to be imagined. The opponents of this plan inquire, “And *do* children know anything of contemporary history? Do they know who is Prime Minister of England, and who is leader of the Opposition? Do they know who are the real rulers of India and how they rule? Do they know anything of the making and administration of the laws they obey, of the general organization of the State, of the army, navy, industries, and home and foreign affairs and relations?”

And the questions are very pertinent. If one took the trouble to find out, one would probably discover an astonishing ignorance of these matters. But if the opponents of the regressive method triumphantly say, “Your average boy knows more of the English Norman Period than of his own times in India,” we might reply, “Yes—and how very absurd! Let us teach him about his own times, and work backwards.” And we might then be answered, “Well, it is proceeding from an unknown to the unknown then, in either case, so let us teach the history of the past to enable a better understanding of the present”.

Better than either plan would be to combine the increasing or concentric method with a course of “Civics,” or definite teaching of the conditions of social and political life to-day, and the duties and privileges of the citizen.

The increasing or concentric method is that by which the

teacher covers the whole history of the country three times. The first time he deals with the broadest outlines, confining himself to the most important events, and the biographies of the most important men.

The second time he fills in the gaps and adds to the biographies, and connects the milestones of history which he set up in the first survey.

The third time he adds still more detail, and comes from the history of kings to the history of the people, and includes the story of their development in war, trade, civilization, colonization, and general progress.

But whatever plan he may follow, the great essential is that the teacher should remain a *teacher*, and not become a lecturer, just because he is giving a history lesson. There is no reason why boys should not observe and reason as much in this lesson as in any other, or why the question "*Why*"? should not be just as frequently put. History can be taught by questioning like anything else. Causes have effects, and effects have causes, and boys must be trained to connect cause and effect, to find out the cause of certain results, and to trace the effects of certain actions. This mental exercise, the awakening and developing of the imagination, the fostering of love of country, interest in humanity, and admiration for noble deeds and noble men, together with general culture, and broadening of the outlook, are the objects of history teaching. The facts are nothing.

History lessons are more fruitful in real education of the imagination and character, if full use is made of historical ballads and historical novels. The former can be read to the class by the teacher, and the latter can be obtained from the library, and read at home. In Appendix III will be found a list of ballads and novels bearing upon the different periods of English and Indian history. One poem or book may transform a reign or period from a dreary desert to a delightful garden, or a historical personage from a shadowy ghost, or a mere name, to a real, living, and thrillingly interesting acquaintance.

If history is ever to take its rightful place in the school, teachers must determine resolutely to throw overboard such facts as do not bear on great

biographies, great episodes, and great movements. Children may be allowed to read as many facts as they like—the more the better—but actual class work must make use mainly of facts that are significant. Consequently, many genealogies, marriages, and battles will be entirely ignored, or only referred to in passing. The teacher must employ his utmost care and knowledge in dealing with the really great concerns of history—unless these are presented truthfully and vividly, he is not a good history teacher; but the minor matters—the facts that fall outside the major concerns—can be relegated to the private study of the pupils, or to the casual method of the reading lesson. There must, in short, be far more sense of proportion than at present. Ignorance of certain facts is infamy; ignorance of others is unimportant. We must avoid teaching history after the fashion in which the weighty and the puerile jostle chaotically side by side. This is the reason why the soundest history can often best be taught through a great picture; art seizes the important and significant aspect of things; thus, in the fine picture “When did You last see your Father,” to which reference has already been made, the whole history of the commonwealth epoch can be read. Another fine picture is Millais’s “Mercy,” which depicts a scene during St. Bartholomew’s massacre; a monk is beckoning a soldier to enter a house and kill the inmates, while a nun is holding the soldier back. How infinitely more humanizing and helpful are such pictures than the hideous “Charge of the Light Brigade,” with its suggestions of brutality and incompetence, redeemed by frenzied courage! How a *song* or *poem* may, in like manner, summarize and interpret an epoch will be shown in a subsequent section. The attempt has never, to my knowledge, been made; but an intelligent teacher could, I doubt not, teach all the latter, and, perhaps, even the earlier, centuries of English history, through a number of great pictures or songs. *And the children would remember the history thus taught, because it would be significant history, history that came home to their “business and bosoms”.* The use of great political speeches has already been mentioned; upon them, too, a large mass of history teaching could be based by any teacher who preferred that plan.—*Hayward.*

CHAPTER XVIII.
THE TEACHING OF GEOGRAPHY.

"Geography, after Arithmetic, is the study that is most advanced in method."—*Bain*.

"The History of the country is its soul, and the natural Geography is its body."—*Compayré*.

"We must always take as a starting-point what the child sees ; but does he see nothing more than the school and his village ? He sees also the infinite heaven, the sun, stars, and moon. He sees the storms, the clouds, the rain, the distant horizon, the mountains, the hills, the downs or simple undulations, and trees and shrubs. This is *real* Geography, and to learn it the child has not to go beyond the things which surround him, and which are exhibited to him in their infinite variety."—*Reclus*.

"Anything that will help the teacher to avoid mere statistics in the Geography lesson, to disentangle the important from the unimportant details, and to throw a colour of *human* interest over the whole work, should be caught at and utilized."—*Fearon*.

CHAPTER XVIII.

THE TEACHING OF GEOGRAPHY.

"Geography is after all the study of Man and not of *names*—Man in relation to the Earth."

It is probable that no subject can be made more interesting and attractive to the pupil than geography, and it is certain that no subject is generally made less so.

It should be a study of real places, real people, real ships, carrying real goods, real railways, real canals, real everything. What cannot be seen and touched should be seen in pictures and through vivid description. Heights, lengths, areas, and other figures are of no consequence, and a better geography lesson, or series of lessons could be given from the top of the Rajabhai Tower at Bombay than could be given in any class-room, by a teacher who understood that the proper object in teaching geography is the training of the observation, imagination, reasoning, and judgment, and not the filling up of the memory with figures and names.

It is in geography, perhaps, that we sin most grievously when we do not proceed from the known to the unknown, and from the concrete to the abstract.

In the beginning the child's knowledge of geographical terms (lake, bay, strait, mountain, etc.) should start either from these actual things seen from the school, or from their models reproduced in the compound in miniature, or exhibited in the class-room.

His knowledge of the map should begin with the plan of his pencil box, of his desk, and of his class-room, followed by those of the school, the street, the village or ward, and the map of the taluka, the district, the province, the presidency, the country, and the continent.

No boy should ever be allowed to define or describe any geographical term until he has actually seen the object or its model, or be made to find places on the map until he has found his own place in the plan of the schoolroom, his own house in the plan of the village, and his own village in the map of the taluka. Everything must be real and actual, and he must talk about nothing he has not seen in fact, in model, or in picture. Geography must be *humanized* and made as *practical* as possible, and the map of India made a more realistic thing, by such exercises as the measurement of the distance between two places on a railway, and the calculation of the fare and the time occupied by the journey. Or by working out how a zemindar, with fields in a certain place, could get his crops most quickly and cheaply to the nearest suitable port, or by following the route of a letter sent by a schoolboy in Colombo to one in Simla, and so on. Whenever any event of general interest is reported in the papers, the place where it occurred should be found by the boys on the map. A good plan is to have a flag on a long pin and leave it sticking on the wall-map in the last place to which the eyes of the public have been turned. Or an imaginary motor-car tour may be undertaken (helped by pictures and post cards). All these devices help to make geography a thing of the *intelligence* and *imagination*, instead of merely a thing of the memory.

The writer has found geography lessons in progress *without a map*, the "lesson" consisting in the repetition of a blackboard-full of names in one case, in the repetition of facts read out by the teacher from a paper of notes in another, and in reading from an unillustrated mapless "summary" in another. He has also happened on the interesting plan of having the class crowded three deep round a blear-eyed old hag of a map, while a monitor looks for a name, shouts it, and the class howls it after him, the teacher meantime attending to more important matters than teaching, or taking his well-earned rest. What possible good can accrue to anybody from wailing "Yang-tse-Kiang," "Karakorum," "Kamchatka," and "Saghalien" for three-quarters of an hour, particularly when *where they are* or *what they are* is a mystery?

When teaching the geography of a country, the teacher should take the boys there in imagination and show them the people in their daily life, their houses, shops, markets, places of worship,

etc., their roads, canals, and railways ; the scenery and natural features of the country ; their great cities and ports, or their nomadic encampments, as the case may be. This can be done with the help of pictures, illustrated geography readers, railway timetables, advertisements, photographs, and by the help of that great boon to the geography teacher, the picture post card. The productions and exports should not be a mere list of names, but should be represented by a card bearing *specimens of the actual articles*. If the country under consideration be Australia, it is a very simple matter to obtain a sheet of cardboard and fasten to it, with glue or string, a lump of gold (a piece of gilded wood or a piece of brass) a piece of coal, a tuft of wool, a small phial of wine, a tiny bottle of eucalyptus oil, and other specimens of Australian productions and exports. Many would be contributed by the children, and even solely regarding examination results, this is surely a better and more productive plan than merely cramming lists of names (which are quite likely to be applied to Russia or Japan).

When the general geography of the world forms the modest syllabus of the class for the year, the teacher should make it *regional* as far as possible. There are upwards of fifty "regions" and upwards of a dozen distinct types of region. For example, one distinct type is that exhibited in South Africa, California, South Australia, and the Mediterranean littoral, where there are extremes of drought and rain, and where only the very long-rooted, thick-leaved, or bulbous plants (which can either go deep for, or retain, moisture) can flourish. In regions of this type a similarity of productions is therefore found. Other types exhibit desert, swampy or prairie characteristics, others produce timber, tea, coal, or the silkworm, and wherever we find similarity of regional conditions we find (broad) similarity of productions, and *vice versa*. We can look further and discover *reasons* for similarity of "region" in similarity of prevalent winds, or proximity to oceans. It is not an accident that to the westward of vast expanses of land we get deserts, but it is the simple result of the direction of the great prevalent trade winds. There is a reason for everything, and it is better to fail to come to a conclusion or

to come to a wrong one, than never to try to find the reason at all.

And, above all, the teacher must not lose sight of the fact that geography should always be taught in relation to *man*. Setting aside geology and physiography and regarding pure geography, it is in the world's effect upon man that physical geography is to be studied, and in man's effect upon the world that political geography is to be studied. Places have an interest on account of persons, and the more populous the place, the higher its interest.

Of what interest is an unscaled peak in the Andes or an uncharted southern sea compared with Mont Blanc or the English Channel; the Amazon or Tierra del Fuego compared with the Ganges or Ceylon? For this reason the geography lesson must always be partly a history lesson, and history must never be taught without a map. Like history, too, geography can be taught through *biography*, and the story of colonization should be the story of Columbus, Drake, Raleigh, Frobisher, Hawkins, Gilbert, Cortez, and Pizarro, Vasco da Gama, Cabot, and Captain Cook.

Moreover, the important *moral* training of geography is eliminated where it is made a weary record of places, instead of a bright story of the people who inhabit those places. The more we know of foreign races and different human beings the more we are literally "humanized"; and the more we see to admire in them the more are our ideas expanded and our sympathies widened. The true teachers of *real* geography are blessed as "peacemakers," or at least as makers for peace. Surely there could be no better "nature study" and no finer "moral" lesson than the study of the human race, and the lesson of the struggles with, and conquests of, Nature; of the achievements and virtues of other races. The story of the Dutch, well told, is better than a sermon, and its appreciation in connexion with the map of Holland, better than the knowledge of many facts as to its area, population, and values of exports, learnt by heart.

In giving an actual lesson in geography to beginners, the teacher should commence with the largest "whole" which the child knows—the neighbourhood, and should draw what geographical illustrations (plain, desert, hill, river, bay, creek, etc.) he can,

from that. On a clay model, surrounded by water, he should reproduce these phenomena, and add such new ones as the locality does not supply, and also draw a *picture* on the board corresponding with his model. This should be copied by the children, and their attention drawn to the fact that we can make a very big picture of a very little model, or a very little picture of a very big model. When the geographical terms are thoroughly understood, and the teacher has made his rivers run down his mountains into bays and gulfs, and has bridged straits with matches, and boys have walked (with their fingers) across isthmuses to peninsulas, and drawn toy carts from town to town, a model of an actual country or island (such as Ceylon) should be introduced, and physical features and towns noted on both (without names, of course), and the map drawn by the class. As many examples as the country affords of the geographical terms that have been learnt should be noted. Thus the connexion between them in model, in fact, and on the map, is established in the minds of the children, *as well as the notion of the use of maps in general.*

The next step is the teaching of the idea of the representation of actual places and relative distances by means of maps, and should be taken by means of a plan of the class-room, drawn on the board. The walls, doors, windows, table, and desks, should be shown, and boys should be called out to show on the plan the exact spot on which they are sitting in the class. Two boys should be made to change places, and another boy be called out to show the change on the plan. The teacher should take a devious walk among the desks, and then have his route marked on the plan by a boy, with coloured chalk. In a subsequent lesson a plan should be made, step by step, of the neighbouring streets, and boys be called out to show where their houses are, where the tank is, the temple, the pound, the mango tope, and so on.

When this idea of representation is grasped, and boys realize that the whole neighbourhood is accurately shown in relative distances on the blackboard, the map of the taluka should be introduced, and journeys taken from one part to another, and places located. Here, again, the boys find many square miles represented on a square yard, and when later the teacher comes to the

map of India it is intelligible, and conveys something to the minds of the children.

The best map of all is the one which the teacher draws himself, and which grows as the course progresses, until it contains everything which has been mentioned, and nothing which has not. The wall map with fine lines, tiny print, and thousands of unnecessary details, is not of much use.

A valuable lesson, preliminary to the study of their first country, may be given to young boys upon the geography of an *imaginary* country, the teacher spending most of the time in asking questions as to what may be deduced from what he draws. For example, he begins by drawing an island with a very indented coast. Deduction, *harbours, ports, and commerce*. He draws a big mountain range in the north. Deduction, *long, slow rivers running south, useful for navigation, ports at the mouths; short, rushing rivers running north, useful for mill-power*. He indicates a forest on the south side of the mountains, and a desert on the north. Deduction, *prevalent "trade-wind" from the south, south-east, or south-west, heavy rainfall on the southern slope, fertile country, crops, population*. A large tributary joins the river in the fertile country. Deduction, *a town there*. The river makes a big loop. Deduction, *a hill in its path*. Two towns separated by an isthmus. Deduction, *a canal*. He draws a railway joining several towns. Deduction, *trade route, dense population, wealth*. He indicates large coalfields. Deduction, *clusters of manufacturing cities; canals and railways; export of manufactured goods from nearest port, probably iron goods, pottery, or cotton and woollen goods from the cotton and wool imported through this port, or produced on the fertile lands*.

The class will not immediately pronounce the deduction, but, if the teacher knows his business, they will be easily led to do so by skilful and suggestive (but not leading) questioning.

How many boys are so taught to use and understand a map that they "instinctively" recognize that a town standing anywhere on the banks of a river is at a greater altitude than any town nearer its mouth, and at a lower altitude than any town nearer its source?

Let us have our geography a living thing of *realities*, of cause

and effect, of observation, reasoning, and conclusion. Not a thing of "summaics," and the dry bones of dead facts.

To this end, a similar device to that of prescribing the historical novel for home reading (in order to illumine the history lesson, and make it more real and interesting) should be adopted, and the library be stocked with interesting books of travel and exploration, such as Stanley's "Through Darkest Africa," and the accounts of their journeys by Moffat, Livingstone, Baker, Burton, Speke, Grant, Mungo Park, Sven Hedin, Nansen, de Windt, Scott, Peary, or Shackleton. In addition to having these books read at home, the teacher should follow the course of the explorer on the map when teaching the geography of that particular country, or read extracts dealing with some place mentioned in the lesson.

Much geography can be taught and much interest aroused in the geography lesson, by the encouragement of the formation by the boys of a class-collection of foreign postage stamps, as well as of picture post cards.

To make the geography lessons particularly interesting, and to create vivid impressions, pictures of some kind are necessary. All pictures may be used, from the pictorial post card to the most expensive photochrome. The drawback to the pictorial post card is that it can only be seen by one child at a time. This is also the drawback to the stereoscope, but the stereoscope has the advantage of limiting the child's vision, and thus giving greater concentration on the picture; but stereographs are expensive. Probably the best method of illustrating for class purpose is by means of the lantern. The drawbacks to this are: (1) Expense, (2) difficulties attending its use in daylight, (3) lack of suitable slides, (4) extra labour involved. As regards slides, too, the majority of views have been made to amuse, and have not been constructed from an educational point of view. One can easily obtain slides of Winchester Cathedral, but it is a difficult matter to obtain a slide which shows rocks scratched by glacial action. As time progresses, better slides no doubt will be produced; if the teacher is a photographer, he will be able to make his own. Maps and diagrammatic slides are useful, and these anyone can prepare.

There is no need to have a perfectly dark room in which to work a lantern. Blinds made of dark material should be fitted to the windows to prevent direct sun rays falling in the way, and enough light may be left to enable the pupils to draw sketch maps and take notes, if necessary.

Open-air geography is coming increasingly to the fore; nature study and open-air geography should go hand in hand. One of the drawbacks to open-

air work is that it interferes with the time-table, and if it happens to be adopted in a school where the specialist system is in vogue, it causes dislocation of other teachers' work. Expense is the other drawback. Now, a great deal of work can be done within the school precincts. Records of weather (temperature, pressure, wind, rainfall), height of the sun at noon, length of shadows, diameter of the sun during the year can be made, and from these records curves can be plotted and compared. The part of the sky in which the moon rises can be noted, the altitude of the Pole star, and thus the latitude may be found. (The only apparatus required for this purpose is a stick, piece of paper, and a protractor.) The permeability of rocks, too, could be shown in the playground and, also, how running water wears a course for itself.

The work that is to go on outside the school depends upon its environment. Both in town and country a great deal can be learnt of trees, coniferous, deciduous, and evergreen. In the country, and on the edge of towns, hills may be seen, and the child can find out of what they are composed; perhaps at the base there may be softer rocks, and the scholar will see that the hill is there because it is composed of harder rocks. Highgate Hill and Parliament Hill, in North London, exist because the clay is capped with Bagshot sand, which resists weather more than clay. A river may be near; the children will note how, at a bend, one bank is steep and the other shelving; the material in suspension may be shown, and perhaps a dredger seen; the teacher may thus lead up to the question of the formation of deltas. The river may flood, and the deposition of silt may be seen when the flood has subsided. Springs may be visited at various times, showing how the amount of water depends upon the rainfall. The seaside gives splendid opportunity for observing the effects of the sea on the coasts, the cliffs, etc.—*Prof. Page.*

CHAPTER XIX.
THE TEACHING OF ARITHMETIC.

"Sciences are not to be esteemed valueless although they have no use in themselves, *if* they sharpen and methodize the judgment."—*Bacon*.

"Arithmetic is the easiest and consequently the first sort of abstract reasoning which the mind commonly bears, or accustoms itself to; and is of so general use in all parts of life and business that scarce anything can be done without it. This is certain, a man cannot have too much of it nor too perfectly."—*Locke*.

CHAPTER XIX.

THE TEACHING OF ARITHMETIC.

"Sums are to get the child right, not the child to get sums right."

THE chief fault to be found with the teaching of arithmetic in India is that it is taught too much as an art and too little as a science. Once more the examination has taught us to turn means into ends; and the right answer has become of more importance than right understanding. We should teach arithmetic with the sole object of exercising and developing the reasoning powers of the child, and because it is an invaluable means of doing this; we should not teach it with the object of enabling him to get the necessary minimum of sums right at the examination, and provide him with "rules of thumb" to enable him to do it.

What a comment upon the present position of examinations in education and their influence upon it are such methods as "See what the answer is coming in. Cows. Put cows in the third term. Put big numbers in the second term if it is more, and in the first term if it is less. Then multiply second terms by the third and divide the result by the product of the firsts." This way of getting proportion sums right is quite general, and answers examination purposes admirably.

The same evil influence is illustrated by the story of the student who left the examination hall with a smile of contentment on his face, but suddenly began to tear his hair and cry, "Alas! I have written out all that Euclid beautifully, but have forgotten to put in the pictures."

In the beginning, arithmetic should deal *solely* with actual, visible, and tangible objects, and at *all* stages should have relation to *things*. Nor should it be the teacher's object to teach the four rules one after the other on the blackboard. The children should learn them simultaneously and unconsciously by *doing*. By means of the abacus, number plates, number pictures, matches, beads,

blocks, peas, marbles, buttons, slips of paper, or other concrete objects, the children should add, subtract, divide, and multiply, up to twenty. The first lessons should be devoted to adding one block to one block and having two blocks, adding another and having three, and so on; then adding two blocks to two blocks and having four, adding two more and having six and so on; and then adding in threes, fours, and fives. Each time a number is mentioned, its symbol should be drawn on the board and copied by the class. Similarly, subtraction should be taught by the removal of ones and twos and threes, during an addition lesson. Boys on the right-hand side of the desk give so many to those on the left and count the remainder; while those on the left find out what their new total is, and then return a larger number and count their remainder, while the others add up the new total. Division is taught by the placing of the total in two equal groups and counting each group, then in three, and four, equal groups, and so on. In teaching multiplication, the teacher distributes the objects in twos or threes and then doubles the quantity, trebles it, and quadruples it. One boy divides his lot between two, or three, or four, others. Three or four boys multiply the possessions of another, by each giving him as many as he already has, and so on.

When the *principles* of addition, subtraction, multiplication, and division are thoroughly understood, their names, and simple sums *representing what is actually being done with the concrete objects*, should follow.

(Tables should be taught concretely by laying out the groups of matches, etc., on the table.)

The next stage should be "problems" to be worked mentally, and if worked wrongly, to be performed in fact, such as, "If Rama had four marbles and then bought twice as many, how many would he have left after he had lost one half of them, and given Krishna two?"

Later, sums dealing with larger numbers, but always having reference to concrete objects, should be worked on paper, and from the very beginning children should always be taught that they *must* write the name of the things represented by the figures. We should never be so foolish as to set the $8,798,986 \times 8,689$ sort of

sum. What do children (or their teachers either) know of thousands of millions (or of one million)? We can't multiply by a larger number than 9 at one time, and there is nothing more to be taught by multiplying by thousands than there is by multiplying by 29. It is only a case of more addition after more multiplying, and the wearying and disgusting of young brains, by asking them to juggle with absurd nightmare millions. When we wish to deal in large numbers let us be content with such sums as, "If a general had 37 regiments each containing 647 men, how many men would he have in his army?" and always set sums in terms of objects, and insist upon the figures being *named* on the slates or papers.

This *naming* of everything is of the utmost importance, because it helps children by its suggestion of concreteness and reality; it keeps the teacher within the bounds of reason and probability, and checks his exuberance of millions; it prevents confusion later on, when more involved sums are being worked; and it makes for orderliness, arrangement, logical sequence, and correct reasoning. All such sums as rule of three and proportion should be written out in full, and consist more of words than of figures. A teacher has some chance of seeing the fallacies and misapprehensions of a child who is made to write out his arithmetical reasoning in full. A sum well set out and correctly reasoned, but wrong through an error in detailed working, is worth far more than a jungle of figures with right answer appended.

In teaching compound addition, subtraction, multiplication, and division the teacher should follow precisely the same plan at first, and should teach all the four rules together, through actual manipulation of coins. Boxes of cardboard rupees, annas, and pice, and their various fractional parts, can be purchased very cheaply for use where it is inconvenient to use real coins.

Where the teacher has not enough coins, or counterfeits, to give each boy a rupee, an eight-anna, a four anna and a two anna piece, an anna, a half-anna, a quarter-anna, and some pies, he should have a mixed sum of money on the table, propound simple sums, and have them actually done and the result counted by boys called out from the class; e.g. : "If Krishna has saved three rupees, five annas, and two pies, how much will he have if he earns another eleven annas, nine pies?" The sums of money mentioned must be laid out by two different boys, and their sum counted by a third.

"How much more does he want to make five rupees?" should follow, and be dealt with similarly.

"But suppose he spent a half of it?" and so on.

One boy should be made to actually divide a sum of money among several others, and a number of boys to give each an equal amount to one boy.

Every sum worked on the blackboard in the early stages should be the record of a sum actually worked with coins, and any boy making a mistake on paper when simple sums are being worked, should be made to correct it with real coins.

And here again there is no need to weary, bewilder, and disgust boys by dealing in crores of rupees. Why should amounts go beyond the experience, or the fairly accurate realization, of the children? Arithmetic is for mental training, not for the adding up of fabulous amounts, or the multiplying of sums already far beyond the realization of children.

Another important matter in this compound arithmetic is the connexion in the child's mind between the name (of weights and measures) and the actual degree of heaviness, quantity, or size, that it represents. How many children (or their teachers) who daily work silly sums in reduction, have any idea of the length of a pole, the size of an acre, the quantity of a bushel, or the weight of a pennyweight? Or how many could fairly accurately estimate the size of the playground, the length of a wall, the quantity of water in a large tub, or the weight of a brick, a dog, or a buffalo, *after a year of weights and measures*? They can do you a sum in reducing foolish millions of inches to miles, ounces to tons, gills to quarters or *vice versa*, because the examiner asks for these things—but why connect them with the realities of life and give them a living significance since this will not pay in the examination-room?

And when the class is being taught fractions, why should the teacher be in a tremendous hurry to enable his class to juggle with vast masses of unmeaning numbers by rule of thumb?

Let the fraction lesson be a lesson in making actual fractions of paper, in adding fractions of paper to fractions of paper, and in learning by *doing* with fractions, as was learned by *doing* with wholes in the first addition, subtraction, multiplication, and division lessons.

Also let the first sums in fractions, worked on the board, be records of sums previously done with fractions of a sheet of paper, or a bar of soap.

Whether it be Standard I or Standard VII let figures have reference to things, and let a fraction be a *fraction of something*. Probably 90 per cent of schoolboys regard the arithmetic lesson as being the most obnoxious and difficult of all, and this is because the teacher in most cases entirely excludes *things* from the lesson and deals entirely in abstract *ideas*, and because the vast majority of sums are stupidly impossible in their inconceivable quantities.

A boy knows something about a few hundred rupees, seers of rice, gallons of water, or acres of land; he knows nothing at all about millions of nothing multiplied by thousands more. He knows that if he has four annas or a quarter of a rupee and spends till he has only a quarter of that, that he now has one anna or one sixteenth of a rupee. He sees clearly that $\frac{1}{4}$ of $\frac{1}{4} = \frac{1}{16}$, but he doesn't in the least understand, or take any interest in the matter, when simply told that to perform the multiplication of fractions you multiply the two numerators and then the two denominators, and the more you *multiply* the *less* it gets.

Similarly he knows that his one anna or sixteenth of a rupee is contained four times in his four annas or quarter of a rupee, and realizes that if we divide a quarter by a sixteenth the quotient will be four. But again he doesn't in the least understand, or take any interest in the matter, when simply told that to perform the division of fractions you turn the divisor upside down and multiply numerators and denominators, and that the more you *divide* the *bigger* it gets. (And if the innocent reader asks, "Do teachers ever do these things in such a hopeless way?" the reply is, "They do. And they always *will*, while passing an examination is a more important thing than exercising and developing the reason.")

Sometimes, when asked why they have set a sum in the reduction of fractions, etc., a yard long, involving half an hour's work, and all about nothing, teachers will say that a big sum gives a good training in accuracy, and that boys who have been used to handling these vast masses of figures are likely to be careful and exact. This is true, but it is also true that the schoolroom floor could be kept nice and clean if it were made of beaten gold, or that one could instantly stop a tooth from aching by cutting one's head off. There is no need to give a training in accuracy at the cost of loathing and hatred by senseless drudgery or to develop exactness by destroying reasoning. There is plenty of room for the training of all the care, accuracy, and exactness possible, by teaching arith-

metic rationally, and setting sums containing quantities within the pupils' experience or comprehension.

In teaching ratio and proportion it is better to use the method of unity because it involves no new principle, and is plain and simple reasoning. There is nothing mechanical about it, and it demands the logical expression in writing, of the steps taken mentally. The actual answer should be considered of less importance than the full and clear statement of each link in the chain of reasoning by which it is reached.

Similarly, all sums in interest, stocks, and shares, etc., must be clearly and definitely *stated*, all figures named, and writing considered as necessary as in a proposition of Euclid.

It is to be borne in mind, too, that some of the value of arithmetic is lost if *neatness*, as well as logical setting forth, is not strictly insisted upon. An untidy, unintelligible, muddled arithmetic paper is rather a contradiction in terms. If our teaching of arithmetic is to make for mental neatness and precision, we shall assist this result by always having neatness and precision of setting forth upon the paper, apart from all consideration of "what is worth doing is worth doing well," and of the fact that all the arguments which may be adduced in favour of neatness in the writing lesson apply to the arithmetic lesson. Not that the teacher must suppose, however, that pen, ink, and paper are essential to the arithmetic lesson, or that he has not begun the latter until his boys begin to write. As well think that pens, ink, and paper are essential to morality, and that no one is moral until he can write essays on "moral" subjects.

Arithmetic is a thing of the *mind*, and would probably gain rather than lose if all writing in this lesson were prohibited. It is probably not an exaggeration to say that there is no class in this country which gets a proper proportion of mental arithmetic. Not only should mental arithmetic have a separate daily quarter of an hour on the time-table, but every arithmetic lesson should begin with mental arithmetic bearing on the subject or subjects of the lesson. When a boy does not know how to do a sum, it is evident that he has not had enough mental arithmetical exercises in the principle involved.

PART III.

AN ANTHOLOGY OF EDUCATIONAL AXIOMS, MAXIMS,
AND *OBITER DICTA* WITH NOTES.

Proverbs are the wisdom of many and the wit of one.

CHAPTER XX.

GENERAL EDUCATIONAL MAXIMS.

“ Mankind continually educates itself through the circle of thought which it begets.”—*Herbart*.

“ To this day the majority still fail to grasp completely the Herbartian truth, the fact that every human soul moves within its *circle of ideas*,”—*H. G. Wells*.

“ Let the mind of the teacher dwell upon the responsibilities of his office and its immense opportunities.”—*Sacchesi*.

CHAPTER XX.

AXIOMS OF EDUCATION.

Education is Development of Faculty.

"EDUCATION is the conscious, physical, and mental influence exerted on man in childhood and youth in order to *develop* all his faculties and powers."—*Niemayer*.

"Education is the *development* of the whole man."—*Comenius*.

"The end of Education is complete human *development*."—*Painter*.

"Education is the *development* in the individual of all the perfection of which he is capable."—*Kant*.

"Education is the *development* and exercise of the faculties."—*Montaigne*.

"Education means a natural, progressive, and systematic *development* of all the powers."—*Pestalozzi*.

"The main object of Education is not to teach but to *develop*."—*Pestalozzi*.

"The chief aim of Education is the *development* of the learner's powers."—*Payne*.

"The end and aim of Education is to *develop* the faculties of mind and body."—*Mulcaster*.

"The task of Education is to assist natural *development* towards its destined end."—*Froebel*.

"To educate a man^f means to *develop* him."—*Schwarz*.

These great reformers and pioneers in the educational world pronounce with remarkable unanimity that Education is *development*. Not the imparting of knowledge, not the learning of facts by heart, not the cramming for examinations. Development of faculty is the work of education. Development of the faculties of the mind, the body, and the character. Mental development, physical development, moral development. All the subjects of the curriculum, all books, educational apparatus, laboratories, gymnasia, and playing grounds, all educational devices, examinations, rewards, punishments, all teaching, training, and instruction, all school work and play should always be definitely directed to development; development of faculty, power, and ability. All that does, and nothing that does not, make for development should be done or utilized by the teacher. Facts are useless but for use in training faculties. Take care of the faculties and the facts will take care of themselves. What the student *knows* is as nothing compared with what he *is* and what he can do. The work of the teacher is not to give him facts but to give him *power*, power to *learn*, power to *do*, and power to *be* what he ought to be.

The Indian teacher has regarded the child as an empty thing to be filled. He must regard him as a mass of embryonic faculties which must be developed, disciplined, trained, and perfected. He must not be concerned if the boy is not *learning* much, but he must be mightily concerned if he is not *developing* much. He can give the boy almost nothing in the way of knowledge that will be practically useful to him in after life, but he can develop every faculty which will be useful to him. He can arm him for the struggle by developing his mental, moral, and physical muscles, and fit him to face the emergencies of life, the dull, weary routine of life, the temptations, disappointments, and buffets, of life. He can study his mind, and set himself to develop and strengthen

it till it is active, original, observant, reflective, and retentive ; he can study his body, and develop it till it is strong, athletic, and healthy ; and he can study his character, and develop it until it is self-reliant, sturdy, and upright. If he aims at doing these things he is worthy of the high names of "teacher," "guru," and "master" ; if he aims solely at giving the boy temporary command of useless facts, that he may pass an examination, he is worthy of some very low names.

In preparing every lesson, in giving every lesson, mental, moral or physical, the teacher must bear in mind that his sole object should be *development of faculty*, and he must aim at development of all, and neglect of none. No educational work, no educational device, no time, and no trouble that do not result in development should be given, and none that do should be withheld. For Education is Development, and that which does not result in Development is not Education.

The Scope and Aim of Education is the Production of the Perfect Man.

"All that which we have not at our birth, and which we require when grown up, is bestowed on us by Education."—*Rousseau*.

"The aim of Education is complete living."—*Rousseau*.

"A complete and generous Education fits a man to perform justly and skilfully all the offices, both private and public, of peace and war."—*Milton*.

"Education aims at the realization of the typical man."—*Payne*.

"The end of Education is to train away all impediment and leave only pure power."—*Emerson*.

"Education is not the storing of knowledge but the development of power."—*Orcutt*.

"The realization of all the possibilities of human growth and development is Education."—*Parker*.

"Education aims to bring out and train up in due time and in their proper seasons all that constitutes man."—*Gill*.

"The educator should be called, not a teacher, but a gardener."—*Froebel*.

"Education can improve a nature, if not entirely change it."—*Aristotle*.

"Education is a child-gardening."—*Rousseau*.

"The object of Education is the realization of a faithful, pure, inviolate, and hence holy, life."—*Froebel*.

"Plants are developed by cultivation, and men by Education."—*Rousseau*.

"The schoolmaster must always have the future of the boy before him."—*Locke*.

"The thing a boy should learn is not what the old author *says*, but what he himself ought to *do* when he becomes a man, wisdom not knowledge."—*Montaigne*.

"The end of education and training is to help Nature to her perfection."—*Mulcaster*.

"Education includes whatever we do for ourselves, and whatever is done for us by others, for the express purpose of bringing us nearer to the perfection of our nature."—*Mill*.

* "The purpose of Education is to give to the body and to the soul all the beauty and all the perfection of which they are capable."—*Plato*.

"Education has to do with the development of power or faculty, and it aims at a full harmonious realization of the normal capacities of man."—*Sully*.

"Virtue and wisdom should be the main purpose of Education."—*Montaigne*.

"Education aims to bring out and train up, in due time and, at the proper seasons, all that constitutes man."—*Gill*.

"The object of Education is to promote the normal growth of a human being, developing all his powers systematically and symmetrically, so as to give the greatest possibility in thought and action."—*Johannot*.

"The process of Education consists in training faculties."—*Combe*.

"Teaching is an art among arts. To be worthy of the name it must be the work of an individual upon individuals. The true teacher must understand, appreciate, and sympathize with those who are committed to him. He must be daily discovering what there is capable of fruitful development, and contriving how better to get at them and to evoke whatever possibilities there are in them for good."—*Gerard*.

"Education has no more serious mission to perform than to inculcate love for truth and wage war on credulity and error."—*Compayré*.

"Drawing out the powers of living minds is indeed different from packing in dead facts, even when the packing is neatly done."—*Thring*.

"The success of Education is not to be determined by what the educated *know*, but by what they *do*, and what they *are*."—*Quick*.

"Education comprises all the influences which go to form the character."—*Currie*.

"Education is much more than instruction."—*Montaigne*.

"To meet the ends of life, the body must grow, the mind be developed, and the moral nature trained."—*Painter*.

"Quantity is not the test of success."—*Calderwood*.

"'What should boys learn?' Those things that they *ought to do* when they become men."—*Agesilaus*.

"Mere knowledge is not Education."—*Thring*.

"Education, to be perfect, should leave no part of man's nature neglected."—*Spencer*.

"Education is the development of good moral character."—*Herbart*.

"Good-will development is the supreme aim of Education."—*Kant*.

"Education proceeds by calling forth normal functional activity."—*Sully*.

"The greatest clerks are not the greatest sages."—*Rabelais*.

"Co-ordinate physical, moral, mental, and æsthetic learning."—*Locke*.

"Always think more of what your pupils will *be* and what they will *do* when their schooling is over, than what they will know."—*Locke*.

"Take for your centre not the object 'knowledge,' but the subject 'man'."—*Locke*.

"The object of Education is to increase the powers and activity of the mind, and not to enlarge its possessions."—*Locke*.

"Education is the nurture of the brain."—*Kant*.

"Education is constant evolution. Children are plants to be cared for and nourished at the proper time."—*Froebel*.

"The great law of culture is—Let each become all that he was created capable of being; expand, if possible, to his full growth."—*Carlyle*.

"The true object of Education is to instil the greatest number of generous and fruitful ideas."—*Guyau*.

"That, and that only, is Education which moulds, forms, or modifies the soul or mind."—*Mark Pattison*.

"To teach is to provide the materials and to put the child under the most wholesome influences for growth in knowledge, mental strength, and moral power."—*Landon*.

"Education means growth, development—the acquisition of mental, moral, and physical strength. It neither stands for educational machinery, nor for the power to express or reproduce a number of facts."—*Landon*.

"Education can make everything out of a man."—*Kant*.

"Education should lead a man to clearness concerning himself and in himself, to peace with Nature, and to unity with God."—*Froebel*.

"The aim of Education is not the production of a many-sided knowledge, but of a many-sided interest."—*Rein*.

"Education is the process of leading out or drawing out the powers of the pupil. Its object is to give him the ability of using the powers for himself and from within, so that in the end he may become independent of the teacher."—*Gladman*.

"Education in its widest sense is the moulding force of life."—*Locke*.

"To engage the attention of the child, to exercise his judgment, to raise his heart to noble sentiments, these I think the chief ends of Education."—*Pestalozzi*.

"Education consists in a continual benevolent superintendence."—*Pestalozzi*.

"In its essential nature, Education aims at developing a noble type of manhood."—*Painter*.

"The business of Education, in respect of knowledge, is not to perfect a learner in all or any one of the sciences, but to give his mind that freedom, that disposition, and those habits that may enable him to attain any part of knowledge he shall apply himself to, or stand in need of, in the future course of his life."—*Locke*.

"To teach is to enable the learner to do."—*Fowler*.

"The ideal which Locke proposed was not the finished scholar but the finished gentleman."—*Quick*.

"The aim of Education is, in truth, always an ideal aim, for it contemplates the completion of a man—the realization in each man of what each has it in him to become."—*Laurie*.

"The aim or object of all Education is to prepare and adapt mankind to their respective duties and peculiar pursuits in life. It is the chief business of Education to pass from distinctly perceived, individual notions to clear, general notions."—*Pestalozzi*.

"Whatever helps to shape the human being, to make the individual what he is, or hinder him from being what he is not, is part of his Education."—*Mill*.

The mere perusal of these plain statements of the scope and aim of education by the greatest educationists, ancient and modern, of England, America, France, Italy, Germany, and Greece, should alone convince us that education is not preparation for examinations, is not learning facts by heart, is not simply instruction, cram, and study. There is not much endeavour, thanks to the examination ideal, on the part of the average Indian teacher to fit his pupils for "complete living," to "realize the typical man," to "train away all impediment," to be a "gardener" among human plants. As a rule it is his purpose "to put more and more into him," and he does *not* "always have the future of the boy before him," if the boy's whole life after the nearest examination is his "future". What the boy learns is actually "what the old author says," and *not* what "he himself ought to do when he becomes a man".

The cramming of boys for unnecessary examinations is not calculated "to give to the body and the soul all the beauty and all the perfection of which they are capable". Nor can "virtue and wisdom" be said to be "the main purpose of education," which takes no thought of anything that cannot be assessed in marks.

The "imparting" of information does not "promote the normal growth of a human being, developing all his powers systematically and symmetrically, so as to give the greatest possibility in thought and action," nor does what Gerard says of teaching apply to cramming.

A revolution will have been wrought in education in India when the Indian teacher realizes that "dropping knowledge in is not calling latent powers out," and that "the success of education is not to be determined by what the educated *know*, but by what they *are* and what they can *do*".

Instruction is a *Means* Towards the *End* of Education.

"The development and strengthening of the mind is the main object of Instruction."—*Pestalozzi*.

"It is better to know few things and have the right use of them, than to know many things which you cannot use at all."—*Seneca*.

"Instruction should not be literary."—*Rousseau*.

"It is not enough to cram ourselves with a great load of Collections ; unless we chew them over and over again they will not give us strength and nourishment."—*Locke*.

"Training and Instruction should run hand in hand."—*Landon*.

"Knowledge is not a shop for profit or sale, but a rich store-house for the glory of the Creator, and the relief of man's estate."—*Bacon*.

"Learning is the last and the least thing to be thought of."—*Locke*.

"Too much learning stifles the soul, just as plants are stifled by too much moisture, and lamps by too much oil."—*Montaigne*.

"It is all well and good for the children to learn something, but the really important thing is for them to *be* something."—*Pestalozzi*.

"Erudition is one of the enemies of real Education."—*Guyan*.

"When we wish to make young people learn too many subjects, and even these too rapidly, we are overstraining their will and intellect, and we are giving them no leisure for reflection, to grasp what they have done, or to prepare for fresh conquests."—*Fouillée*.

"Knowledge is not wisdom."—*Bacon*.

"Knowledge crammed into the mind is *not* power, but so much almost useless lumber."—*Landon*.

"A man who has only word-wisdom is less susceptible to the truth than a savage."—*Pestalozzi*.

"All Instruction should graft the most essential

parts of its subject firmly into the very being of the human mind ; then join on the less essential gradually, but uninterruptedly, to the most essential, and maintain all parts of the subject in one living proportionate whole."—*Pestalozzi*.

" It is perhaps the most frightful gift which an evil genius makes to his age—knowledge without capacity to do."—*Pestalozzi*.

" The sole and genuine root of Instruction is a feeling of comprehension."—*Herbart*.

" The fact on which all true teaching hinges is this, that every movement which strengthens the mind is a gain ; and all true teaching makes movement. Whereas every lump that burdens the mind is a loss ; and memory work is lump work, and when the mind is blocked by the lumps upset into it, farewell hope of better things."—*Thring*.

" Let then the mere acquisition of knowledge be put on one side as not belonging in the first instance to the theory of teaching, any more than wages belong to the training of the body."—*Thring*.

In this country instruction has come to be regarded by teachers, parents, and pupils as the sole end instead of as a means to development, training, and perfection of faculty. We do not instruct because the facts and information are valuable *in themselves*, but because in the act of acquisition the mental faculties are exercised, provided the teacher knows how to teach.

If I set a problem requiring children to find out how many acres of grass will be grazed by 17 cows in 13 days, if 8 acres are grazed by 5 cows in 3 days, *it is not because this piece of information, when known, is in itself useful and valuable.* We are no nearer the perfect state of equipment for life by knowing how many acres of grass will

be grazed by 17 cows in 13 days. But we *are* nearer the perfect state of equipment by working out the sum intelligently, inasmuch as our reasoning powers have been exercised and developed by the act of *working* the problem, and discovering the fact as to the grazing abilities of the 17 cows. It is the act and not the fact that is important. And so with all Instruction. It is invaluable or valueless according to whether it is co-ordinated with *training* and is used as a means of development. The facts are nothing but in so far as they affect faculty. Instruction should not be instruction in knowledge of things, but in knowledge of processes, not in learning, but in *how to learn*, not in knowing, but in *doing* and *being*.

Memory is Less Important than Observation, Reasoning, and Intelligence. We should Educate to Train the Mind, not to Fill It.

"Reduce the wretched exercises of Memory."—*Basedow*.

"The grinding over and over again of a subject, after pupils have attained a fair knowledge of it, is nothing less than stultifying and killing curiosity."—*Havelock-Dayton*.

"To know by heart is not to know."—*Montaigne*.

"The memory must be employed in strict subservience to the higher faculties of the mind."—*Mulcaster*.

"We teach only to stuff the Memory, and leave the Conscience and Understanding void."—*Rousseau*.

"An enormous amount of material is not instructive to the learner."—*Seneca*.

"No memory work is true mind work."—*Thring*.

"Mind is known by what it puts *out* ; Memory by what it casts *in*."—*Thring*.

"Nothing should be learnt by rote ; this is hurtful to the understanding."—*Ratichius*.

The results would not be so serious if the over-development of the Indian student's memory was accompanied by conscious and sustained effort to develop his powers of observation and reasoning. It is when "education" becomes instruction, and instruction becomes mere information, and the student becomes a receptacle to be filled, instead of an organism to be developed, that evil consequences ensue.

There would conceivably be *some* slight excuse if we only burdened his memory with what is called "useful" information, and took care that his days and nights of cramming were devoted to cramming such things as "commercial intelligence," or technical knowledge which would help him practically in after life, and make him more useful in the calling he adopted. This would be bad enough, and would be in no sense education, but what is to be said for the plan of filling his memory with what is utterly and absolutely useless, while his other mental powers are completely neglected?

The intellect and the memory may be likened respectively to the Head of a Department and his clerk. The one organizes, arranges, considers, and decides; the other records and reminds. Why should we give all honour and attention to the clerk and neglect the Head of the Department?

If we give our attention to developing the senses, the reason, and the imagination, we can leave the memory to take care of itself. The poetry or "tables" learnt by heart in school, together with its exercise in the ordinary affairs of daily life, will give the memory of the normal child all the training and development it needs.

The Best Teachers are Required for the Lowest Classes.

"The first stage in Education is of immense importance and requires a very high degree of skill in the teacher."—*Mulcaster*.

"The first ground-work should be laid by the best workman."—*Mulcaster*.

"If the superstructure is not to totter, the foundation must be laid well."—*Comenius*.

"As the beginning gives a bias to the whole after-development, so the early beginnings of Education are of most importance."—*Froebel*.

No teacher should ever think that he ought to rise to the higher classes by seniority and merit, or feel that he is being overlooked or unappreciated if kept with the lower ones. There should never be any lecturing in a *school* (though of course lecturing is right, proper, and necessary with the trained college student or other adult), but if there is to be any, because teachers only know how to *tell*, and do not know how to *elicit*, it is better that the lecturing should take place in the highest classes and not in the lowest. Little children need to be mentally trained, and not merely informed, and a teacher of little erudition, but much skill in teaching, is an infinitely more desirable person for the lowest classes than a man who is a brilliant scholar, but untrained and unskilled as a teacher. Standard VII may need the best *scholar*, Standard I certainly needs the best *teacher*. Is there any reason why brilliant scholars should not also be trained and skilful teachers?

**Education should be the Development of all Faculties,
including those of the Hand and Eye.**

"All children, though of the highest rank, are to be taught some gentle manufacture in their minority."—*Dury*.

"Hands are to be called into play as a means of learning."—*Rousseau*.

"Rich and poor alike must be taught to use their hands and eyes."—*Comenius*.

"Teach drawing to make the eye correct and the hand supple."—*Rousseau*.

"Combine the workshop and the school."—*Pestalozzi*.

"The most colossal improvement which recent years have seen in Secondary Education lies in the introduction of the Manual Training Schools, not because they will give us a people more handy and practical for domestic life and better skilled in trades, but because they will give us citizens *with an entirely different intellectual fibre*."—*Prof. James*.

"If you want to develop the brain effectually you must do it through the muscles of the hand, which is the chief agent of human activity."—*Sir J. Cockburn*.

"The highest possible functional activity of these hand centres is of paramount importance, not less to mental grasp than to industrial success."—*Sir J. Crichton-Brown*.

If education is mental, moral, and physical training and development, the "physical" training is incomplete if the hand and eye are not trained. The grossly erroneous impression prevails in this country that it is folly to give any sort of manual training to boys who are not going to become maistries and earn their living by the labour of their hands. It would be quite as logical to argue that no boy who is not going to live by his wits need have his mental faculties trained, or that no boy who is not going to fill some position of trust and responsibility need have his character developed.

Education *aims* at producing the perfect man, and surely the man whose abilities and powers of hand and eye are trained and developed is nearer perfection than the man whose hand is clumsy and incapable, and whose eye is uneducated.

From the kindergarten class playing with Froebel's "gifts," to the manual training class executing original designs in wood-carving, metal-working, or cabinet-making, children should receive continual training of some kind or another in the disciplined use of

hand and eye which produces skill, without any thought or consideration of utilitarianism whatsoever.

I should increase enormously the amount of manual or "motor" training relatively to the bookwork, and not let the latter preponderate till the age of fifteen or sixteen. Laboratory work and shopwork engender a habit of observation, a knowledge of the difference between accuracy and vagueness, and an insight into nature's complexity and into the inadequacy of all verbal accounts of real phenomena, which once wrought into the mind remain there as lifelong possessions. They confer precision; because if you are *doing* a thing, you must do it definitely wrong. They give honesty; for when you express yourself by making things, and not by using words, it becomes impossible to dissimulate your vagueness or ignorance by ambiguity. They beget a habit of self-reliance. They keep the interest and attention always cheerfully engaged, and reduce the teacher's disciplinary functions to a minimum. Compared with the youth taught by the objective and experimental methods, one brought up exclusively by books carries through life a certain remoteness from reality; he stands, as it were, out of the pale, and feels that he stands so, and often suffers a kind of melancholy from which he might have been rescued by a more real education.—*Prof. James.*

CHAPTER XXI.

TEACHING MAXIMS. (THE TEN GREAT
PRINCIPLES.)

"In a teacher I prefer activity of mind *and an interest in his work* to high scholarship; for the one may be acquired far more easily than the other."—*Arnold*.

"Accumulated information of the race *must* be handed down among teachers,"—*Sir Oliver Lodge*.

CHAPTER XXI.

TEACHING MAXIMS. (THE TEN GREAT PRINCIPLES.)

Rule 1. Teach Through the Senses.

"Everything in the intellect must have come through the senses."—*Comenius*.

"The eye is more retentive than the ear."—*Sully*.

"No intellectual work can be done till the senses have supplied the material."—*Sully*.

"Sense-training is the first and foremost training."—*Pestalozzi*.

"The senses are the only powers by which children can gain the elements of knowledge."—*Calkins*.

"To be taught to see is to gain word and thought at once—and both true."—*Ruskin*.

"What we know, as children, is, for the most part, what we see."—*Abbott*.

"The use of the senses which makes the child conscious of its powers, forms its mind, and prepares it for its after work, constitutes its elementary education."—*Pestalozzi*.

"The child has eyes, ears, and fingers which he can use on things and facts and gain ideas."—*Pestalozzi*.

"Self-development begins with sensations received through the senses. These sensations lead to per-

ceptions which constitute the basis of knowledge."—*Pestalozzi*.

"First appeal to the child's senses through objects."—*Rousseau*.

Rule 2. Proceed from Observation to Reasoning and thence to Memory.

"The spirit of observation is the best of Professors."—*Compayré*.

"All power begins by loving observation."—*Thring*.

"Observation, love, work. By these that high training is built up which deals with life and mind."—*Thring*.

"Observation is the basis of knowledge."—*Froebel*.

"Knowledge should rest on observation, not on authority."—*Rousseau*.

"Observation more than books, experience rather than persons, are the prime educators."—*Alcott*.

"What the learner has gained by his own observation has become an actual possession which he can explain or describe in his own words."—*Pestalozzi*.

Rule 3. Tell the Pupil as Little as Possible and Lead Him to Tell You as Much as Possible from His Own Observation and Deduction.

"Mentioning a fact is not teaching it."—*Landon*.

"The object in teaching is to bring more and more out, rather than to put more and more in."—*Froebel*.

"Dropping knowledge in is not calling latent powers out."—*Thring*.

"Teaching is not telling, but training."—*Mann*.

"The teacher is primarily an asker, the child an answerer."—*Gladman*.

"Socrates taught everything but he told nothing."—*Thring*.

Rule 4. Let the Pupil Learn by Doing.

"Being and doing come before knowing."—*Pestalozzi*.

"Development is produced by exercise of function—use of faculty."—*Froebel*.

"Development comes through self-activity."—*Froebel*.

"Develop from within, self-active and free, in accordance with eternal law."—*Froebel*.

"Each study must be valued as it develops power, and power is developed by self-activity."—*Froebel*.

"Freedom and law are not in opposition for the child any more than for the man."—*Sherriff*.

"A child is a doer and a creator."—*Froebel*.

"Knowing and doing must proceed together."—*Payne*.

"Learn by doing."—*Froebel*.

"Provide for the expression of child-activity."—*Rousseau*.

"The first step towards the development of the mind is through the muscular system."—*Critchley*.

"The starting point of all that appears, of all that

exists, and therefore of all intellectual conception, is action."—*Froebel*.

"The child renders the inner outer by his restless eagerness to touch and pull about."—*Pestalozzi*.

"To be employed is to be happy."—*Gray*.

"Spontaneity and self-activity are the necessary conditions under which the mind educates itself and gains power and independence."—*Pestalozzi*.

"Theory and practice should go together."—*Herbart*.

"The primary principle of Education is the determination of the pupil to self-activity."—*Hamilton*.

Rule 5. Start from What He Knows and go on to What He Does Not Know.

"Link the teaching of the new with facts already known, with which the new has a real relation of likeness or unlikeness, so that the growth of knowledge may be an organic growth."—*Laurie*.

"Proceed from the known to the unknown."—*Spencer*.

"Personal experience necessitates the advancement of the learner's mind from the near and actual to the more remote."—*Payne*.

"Ideas before symbols."—*Rousseau*.

"Begin with what is known and thence go on to the unknown."—*Marcel*.

Rule 6. Start from the Concrete Thing and go on to the Abstract Idea.

"First the reality, then the symbol."—*Payne*.

"Things before words."—*Rousseau*.

"Our lessons ought to start from the concrete and end in the abstract."—*Froebel*.

"The study of things should precede the study of words."—*Ratichius*.

"The thing itself should come first, and then whatever explains it."—*Ratichius*.

"Whatever the study may be, without the idea of things represented, the signs representing them go for nothing."—*Montaigne*.

"The concrete should precede the abstract ; the simple, the complex ; the nearer, the more remote."—*Comenius*.

"Things go before words, realities before symbols, substance before shadow ; and do not invert this order, lest the order of harmonious development is disturbed."—*Pestalozzi*.

"Teach through things that come in contact with children and which concern their immediate interests, feelings, and thoughts."—*Pestalozzi*.

"The child should always begin its education by dealing with concrete things and facts—not definitions, rules, and words."—*Pestalozzi*.

"Teach through pictures."—*Basedow*.

"In the sciences the students should have the objects studied before them."—*Comenius*.

Rule 7. Teach Inductively.

"It is the chief business of Education to pass from distinctly perceived, individual notions, to clear, general notions."—*Pestalozzi*.

"First the illustration, then the rule."—*Ratichius*.

"Proceed from the simple to the complex."—*Spencer*.

"First the thing itself, then the manner of the thing. Rules without matter confuse the understanding."—*Ratichius*.

"Teach inductively."—*Gladman*.

Rule 8. Make all Lessons Interesting and Attractive.

"When Interest has been fully developed it *must* always combine pleasure, facility, and the satisfaction of a need. We see again that in all exertions, power and pleasure are secured to Interest. It does not feel the burden of difficulties but seems to sport with them."—*Ziller*.

"Interest means in general that species of mental activity which instruction must create, but which has no place in mere knowledge. For knowledge may be a store which a man may entirely dispense with, and yet be no other than before."—*Herbart*.

"Interest is the life of teaching. It is the first requisite in a lesson."—*Currie*.

"Instruction must excite the interest of the pupils, and therefore be pleasurable."—*Spencer*.

"Everything without constraint. Compulsion and stripes set the young against study."—*Ratichius*.

"In the case of the mind, no study pursued under compulsion remains rooted in the memory."—*Plato*.

"The desire of learning rests on the will which you cannot force."—*Ratichius*.

Rule 9. Encourage Self-teaching.

"Self-development should be encouraged."—*Spencer*.

"The true teacher is within the learner."—*Jacotot*.

"Every one has two educations, one which he receives from others, and one, more important, which he gives himself."—*Gibbon*.

"The best part of every man's education is that which he gives himself."—*Scott*.

"The great thing to be educed is self-teaching."—*Rousseau*.

"The teacher's part in the process of education is that of guide, director, or superintendent of the operations by which the pupil teaches himself."—*Payne*.

"Eat the pupil's dinner for him if you will, but I beg of you to let him do his own thinking."—*Baldwin*.

"Children should be told as little as possible, and induced to discover as much as possible."—*Spencer*.

"Our system of teaching should foster the principle of self-development and self-instruction."—*Tate*.

"The teacher is a mere stimulator and guide of intellectual processes by which the learner educates himself."—*Pestalozzi*.

"The education of the child should be self-education."—*Pestalozzi*.

"Do as little as possible for a boy; lead him to work for himself."—*Arnold*.

"What the learner discovers by mental exercise is better known than what is told him."—*Marcel*.

Rule 10. Follow Nature.

"Everything according to Nature."—*Basedow*.

"The art of Education is to follow Nature, to assist and imitate her in her way of rearing men."—*Wilderspin*.

"Follow Nature."—*Froebel*.

"In everything we should follow the order of Nature."—*Ratichius*.

"Learn as much as possible from the great book of Nature."—*Comenius*.

"Nature is to be ruled only by obeying her."—*Bacon*.

"Man and Nature proceed from the same source, and must be governed by the same laws."—*Froebel*.

"Man, particularly in boyhood, should become intimate with Nature."—*Froebel*.

"Nature develops all the powers of humanity by exercising them—they increase with use."—*Pestalozzi*.

"Nature is to be studied and followed."—*Rousseau*.

"Nature makes the boy toward,
Nurture sees him forward."—*Mulcaster*.

"Nature has implanted within us the seeds of learning, virtue, and piety. To bring these seeds to perfection is the object of Education."—*Comenius*.

"The path of Nature which brings out the powers of men must be open and plain."—*Pestalozzi*.

"The principles of Education are not to be devised *ab extra*; they are to be sought for in human nature."—*Payne*.

"The principles of Education are to be found in the study of Nature."—*Froebel*.

"Nature itself points out the safe course, and the faculties which first require development are those in which there is the least fear of overstraining."—*Rousseau*.

"The child loves motion and noise ; here is a hint from Nature."—*Basedow*.

"We must teach children after the way by which Nature intended that they should be taught."—*Tate*.

Whatever is according to Nature is natural, what is not is unnatural, and what is unnatural is wrong. In education, therefore, we must try to do nothing unnatural, and must always follow the *natural* course.

In teaching a foreign language, for example, we need be in no doubt as to the proper method provided we follow Nature, and teach by imitation, use, and practice, and not by rules of grammar and translation.

Nature develops faculty by exercise, and we must let the child learn by doing. It is natural to draw a conclusion from a number of isolated experiences, and we must therefore teach inductively. It is natural to take an interest in what pleases and attracts us, and we must therefore make the class-room, the class lessons, and ourselves, as attractive and pleasant to children as possible. A foundation or basis is natural, and we must have a basis of what is known upon which to build a fabric from the unknown. Things precede their names, and ideas precede their symbols, and in teaching we must proceed from the concrete to the abstract. It is only through the senses given us by Nature that we can receive the sensations which lead to and are the materials of, knowledge. In teaching, therefore, we must train and develop the senses, and then teach through the senses.

When in doubt follow Nature ; and when not in doubt—follow Nature.

Bad lessons are:—

“1. The echo lesson, consisting of statements and questions, e.g., ‘Liverpool is the second port in England; what is Liverpool?’

“2. The lecture lesson, which very soon exhausts the children’s power of attention, and they listen no more.

“3. The lesson with superfluous introduction, the latter being either direct but far too long, or indirect by ‘eliciting’ the subject by a devious and tedious route.

“4. The desultory lesson, a number of disconnected and independent points being introduced.

“5. The discursive lesson, where the subject is left in order (for instance) to give an unnecessary derivation, flying off at a tangent instead of circling round the central point.

“6. The lesson where the wrong person is taught, because it is delivered to the inspector.

“7. The disproportionate lesson, where a want of due relation magnifies the unimportant and glosses over the essential.

“8. The disregard of the previous knowledge of the class, either by a long explanation of what the children know very well, or an assumption of greater knowledge than they possess; this error is often noticed in lessons on arithmetic.

“9. The indefinite questioning, where many answers might be admitted, but the teacher will only accept the particular one which he has in his head, e.g., ‘In what is iron found?’ The answer ‘ironstone’ was

rejected as wrong, and the boy much disconcerted thereby.

"10. The question that admits of but one obvious answer, for which, however, praise is given ; as in a lesson on 'sound,' after making a noise on some instrument which might have been heard in the street, the teacher praised a boy for saying he heard it.

"11. The illicit use of the word elicit, for which many young teachers have a sort of fetish worship ; thus some have sought to 'elicit' the height of a mountain or length of a river of which the children have never heard."—*Sir Henry Oakley*.

APPENDIX I.
QUESTIONS FOR CONSIDERATION.

“The problems which beset the conscientious teacher are innumerable.”—
Oakley.

APPENDIX I.

QUESTIONS FOR CONSIDERATION.

SELECTED FROM INDIAN AND ENGLISH EXAMINATION PAPERS, AND
CORRESPONDING IN ARRANGEMENT TO THE CHAPTERS OF THIS
BOOK.

I.

1. What is education? What are the true places of (a) the fact, and (b) the examination in an ideal scheme of education?

2. Are education and instruction the same thing? If not, indicate the differences.

3. What should be the primary object, and what the secondary objects, of the teacher in all educational work?

4. Discuss Froebel's dictum: "The child is a plant and the teacher a gardener".

5. Discuss the relation of modern *education* to modern *life* in India.

6. What do you understand by utilitarianism in education? Are you an advocate of this principle?

7. What do you understand by culture?

8. Distinguish between the utilitarian and disciplinary aspects of education, and show how they are related to each other.

9. How far is the maxim that "Learning should be made pleasant" consistent with Pestalozzi's remark that "A child must be taught very early in life that exertion is indispensable for the attainment of knowledge"?

10. Distinguish between the *science* and *art* of education, and show how they mutually improve each other.

11. Briefly explain and show in what way education is concerned with the social feelings.

12. What qualities do examinations test, and what do they fail to test?

13. "The aim of instruction, therefore, is *not* the production of a many-sided knowledge, but of a many-sided interest" (Rein). Explain this statement, and give reasons for accepting or rejecting it.

14. What, in your opinion, is the aim of education? Mention other aims that have been held in view, and state by whom.

15. What is a "liberal" education?

16. What are your own views about

(a) Free and compulsory education of the masses;

(b) Co-education of the sexes;

(c) Religious and moral education;

as derived from the light thrown on them by the history of education? How far are these feasible in your town? What ways and means would you propose for their adoption?

17. What are the chief faults of the educational practice of this country to-day?

18. Write a brief essay on your ideal system of education.

19. Discuss Milton's dictum: "A complete and generous education is that which fits a man to perform justly, skilfully, and magnanimously, all the offices, both public and private, of peace and war": compare it with the proverb, "Knowledge is Power," and show how far instruction and education are identical.

20. What do you understand by, and think of, utilitarianism in education?

21. What is the difference between education and instruction, and what influence have examinations on both?

22. What claims has the new education to its title? What does it actually require from us to-day?

23. "Book-knowledge is not the knowledge which is of the greatest importance to the masses of the people" (Carpenter). Criticize this, with your own views on the matter.

24. What is the general aim and scope of education?

II.

1. What is meant by the statement "In India, education is too literary"? How would you propose to guard against making education too literary?

2. What are the proper processes to be followed by the teacher whose object is mental training and development of the intellect, rather than strengthening of the memory?

3. Discuss fully the statement "General truths, to be of due and permanent use, must be *earned*".

4. What are the reasons generally adduced for paying more attention to mental than to moral and physical attention? Which of the three do you consider to be the most important?

5. What do you understand by the "mind," and "mental education"?

6. State and illustrate the main laws of attention, and examine the following: "A teacher must not expect a child to be interested in that of which he is wholly ignorant". How does this bear upon the method of teaching?

7. Bring out the meaning of the principle "Exercise strengthens faculty," and show its bearings on education. Do all kinds of exercise develop the faculties?

8. State concisely some of the common abuses of memory in teaching, and show in each case how they violate educational principles.

9. What kind of lesson—if any—should be learned by heart by very young children? Give reasons and illustrations.

10. Consider the nature and psychological basis of repetition and its place in school work.

11. Examine the following: "To exercise and improve the memory is allowed by all to be one chief part of the business of the educator, and more especially the school teacher".

12. Distinguish clearly between the loading of the memory with facts and its discipline as an intellectual power. How can it best be trained in accuracy as well as rapidity of action?

13. What do you understand by cramming?

14. "In no other mental faculty do people show such variety of

power as in memory." Explain clearly by what differences of mental constitution such varieties of power of memory are caused. State the principles that would guide you in meeting the consequent difficulties of dealing with the memory work of a large class.

15. What are the more common defects in children's reasoning about the causes of things? How would you set about improving their manner of generalizing about causes?

16. Which is the more important factor in school education—learning or thinking? Describe the difference, and point out by what lessons the power of reflection and understanding may be best developed.

17. What methods would you adopt for the more effective training of the reasoning power at school? Show how you would vary your methods according to the age of the pupils.

18. Express precisely what is meant by, and implied in, training. Compare the characteristics of a child that has "run wild" with those of a child that has been "spoiled".

19. Define as precisely as you can, each of the following terms, and show how they are related: *Education, Instruction, Discipline, Training, Development.*

20. Explain the meaning of the term "to reason". Mention two ways in which pupils may be trained to reason, giving an illustration of each.

21. "Cramming seeks to stamp things in by intense application immediately before the ordeal. But a thing thus learned can form but few associations. On the other hand, the same thing recurring on different days, in different contexts, read, recited on, referred to again and again, related to other things and reviewed, gets well wrought into the mental structure" (James.) (a) State two principles of mental activity that are implied in this passage. (b) State two general rules of method suggested by this passage. Illustrate their application.

22. "A generation ago it was the accepted theory of educators generally, that instruction, to be most effective, should cross the grain of the youthful mind; that if disinclination were shown towards any particular study, the teacher should catch at this as his welcome clue; and that the scholar should thereafter be

practised and drilled, for his mind's good, against his indifference, his dislike, and even his repugnance, until he should learn to do well and freely that for which he had originally the strongest inaptitude . . . not only a better observation of life, but the study of physiological psychology, has led the educators of to-day to a widely different view of the office of instruction" (Francis A. Walker). What is this "widely different view?" Give, with reasons, your judgment as to the comparative soundness of the two views, showing the bearing of each on interest and the will.

23. What part do school museums, libraries, and excursions play in education? What principles would you observe in making your selections for these three?

24. How can you make the best use of children's powers of memory?

25. What do you understand by "over-pressure"? How does it affect the intellect?

26. To what extent, and in what subjects, is "learning by heart" to be encouraged?

27. What is the faculty of imagination? How, and how far, can it be developed by training?

III.

1. Discuss Herbart's statement "A handful of good life is worth a bushel of learning".

2. What do you understand by "character," and what means would you adopt in school for its formation and development?

3. "The crowning excellence of all education is nobility of character." Discuss this statement.

4. What were Herbart's views on the relation between education and character?

5. Consider the dictum of Professor James that "Education is for behaviour, and habits are the stuff of which it consists".

6. Estimate the influence of examinations in education from the point of view of general moral education and character-formation.

7. Estimate the place of (a) organized games, (b) the example

of the teacher, and (c) strict discipline in a scheme of moral education.

8. Discuss the value of rewards, concrete and otherwise, and of punishments, corporal and other, in the training of character.

9. Which of the class subjects offer the best means of moral training when scientifically taught?

10. Show, and estimate, the connexion between the training of the character and the training of the body.

11. Discuss the place and value of the specific moral lesson in the Indian High School.

12. How far is it true that some of the most important virtues are far better implanted and trained in the playing field than in the class-room?

13. Discuss from a psychological and from an ethical standpoint the value of the desire for reputation, or the good opinion of others, as a motive in education.

14. What are the more important educational aspects of children's fear? Examine the proposition that education means the leading of a child to fear in due proportion those things which are worthy of being feared.

15. Explain, by help of an illustration, the disturbing effect of violent feeling on the thoughts. Show in what ways children are especially liable to this disturbing influence, and suggest how you would seek to counteract the same.

16. Explain the influence of sympathy in the work of the school, showing its bearing both on intellectual and on moral education.

17. Illustrate the bearings of a study of the principles of psychology on moral education.

18. Give some account of the nature and conditions of sympathy. It is said to be easier to make children sympathetic than just, and easier to make them sympathize with adversity than with prosperity. Examine these statements and discuss their educational bearing.

19. Explain as to an advanced class the nature and functions of conscience. Give different designations for it, and show its relations to intellect, feeling, and will.

20. How would you cultivate the spirit of reverence?

21. It is said that moral training implies sympathy between parent (or teacher) and child. Inquire into the meaning of this statement, and compare the general moral effect of a severe discipline, i.e. one relying mainly on fear of punishment, with one which appeals to personal affection and sympathy.

22. Explain accurately the term instinct. Give examples of undesirable instinctive tendencies with which school discipline can deal, and propose methods of correction.

23. What practical counsels respecting the moral discipline of a school can you infer from speculations on the will and voluntary movement?

24. Give examples of voluntary actions (1) not preceded by deliberation, (2) deliberate, but decided by feeling, (3) decided by effort of will.

25. Explain the evil effects of making parental and tutorial approbation and disapprobation the test and rule of moral training.

26. "If you would have any influence over man you must do more than merely talk to him; you must make him—make him so that it is impossible for him to will otherwise than you wish him to will" (Fichte). Discuss this assertion from an educational point of view.

27. How (if at all) would you distinguish between self-will and a legitimate independence of will? Point out the bearings of your distinction on the method of moral education.

28. Say by what sort of discipline and exercise the will may be trained in school.

29. State precisely how you would explain the nature of conscience (*a*) to a Standard I class, (*b*) to a Standard VI class. What definitions would you adopt in each case? Give reasons for both definitions.

30. In the education of character, how would you propose to deal with the two extremes of an excessively weak and an excessively strong will?

31. Write a short essay on the formation of habits, and show the bearings of this subject on the practical work and discipline of the school.

32. Enumerate some of the chief kinds of habits which may be formed in school, showing the importance of each.

33. Explain, with examples, what is meant by a strong will and a weak will, and name some of the chief difficulties arising for the teacher under each head.

34. "Only by doing can a child attain strength of will, and only by successful doing" (Rencke). Consider what psychological justification there is for this dictum, and discuss its value as a practical maxim in education.

35. Give some practical rules for the formation of some moral habit, with a view to fixing it firmly and lastingly.

36. Explain how the consistent requirement of certain observances of neatness, punctuality, etc., from a child at school will aid the formation of useful habits in after life.

37. The will must be reached through the mind and heart. Discuss this, showing how you understand the relation of action to thought and feeling.

38. How may the training of the will be both directly and indirectly developed at school? By what methods would you propose to carry it out systematically?

39. Write a short account of habit, and say what the teacher has to do with it.

40. Show how you would seek to promote honesty, perseverance, and thoroughness in school work. What are the chief obstacles which you might expect to meet?

41. What special measures would you take to secure honesty, independence, and thoroughness in school work?

42. How would you act in the following cases: (a) A boy confides to you in private conversation that certain of his schoolfellows have been guilty of dishonest practices; (b) it is reported to you as head master by an assistant master that he has been hissed by his form; (c) a boy tells you what you are morally convinced is a lie, though you cannot bring the proof home to him?

43. Compare the discipline of school and the discipline of home in the formation of character.

44. Contrast the conceptions of virtue and duty, and inquire how far their application coincides.

45. Explain how you would teach by a course of special lessons the chief moral duties in school, and how you would render them practical and attractive. Classify the duties to ourselves you would inculcate.

46. Name some special difficulties which teachers have to encounter under the head of "disposition," and show how you would attempt to deal with them.

47. Why should children not acquire habits?

48. How would you deal with the following faults and difficulties: (a) indifference, (b) untruthfulness, (c) dishonesty of work, (d) careless preparation?

49. Character has been defined as "a completely fashioned will". What does this mean?

50. What is meant by moral character? In what different ways can a teacher help to form a right moral character in his pupils?

51. How would you cultivate the habit of truthfulness? Trace its connexion with scientific accuracy, and with the work of a school generally.

52. How would you deal with cases of (1) indifference, (2) idleness?

53. Write a short note on the formation of habits.

54. How would you deal with (a) a clever but indolent child, (b) a dull but industrious child?

55. State and illustrate the moral arguments you would use to a Standard VI child in regard to lying.

56. Point out and illustrate the moral significance of the fact that practical habits are formed and strengthened by repeated acts, and that passive impressions grow weaker by being repeated upon us.

57. It is often said that boys are cruel; show in what limited sense the statement is true.

58. Bring out the meaning, with a concrete example, of the habit of obedience.

59. How should hasty temper and unpunctuality, or laziness and sulkiness, be punished, and why?

60. By what methods may moral instruction be imparted? Discuss their value.

61. How can moral training in schools be made a reality ?
62. What various moral appeals can a teacher make to his pupils ? Compare their power and value.
63. What are your views on religious and moral instruction in schools ?
64. Discuss the aim and moral value of concrete rewards and corporal punishment in the case of children under twelve years of age.
65. Do you advocate the giving of specific "moral" lessons, as part of the daily routine of class work ? Give full reasons for your answer.

IV.

1. Plato said : "The soul of a child in his play should be trained to that sort of excellence in which, when he grows to manhood, he will have to be perfected". What did he mean, and how far do you consider his views applicable in India to-day ?
2. Discuss Rousseau's remark that "It is the sound constitution of the body that makes the operations of the mind easy and certain".
3. Do you consider the Indian or the English games to be more beneficial to the boys of this country ?
4. Show how all physical education involves a degree of moral education.
5. Compare the relative values of exercises for muscular development and of organized games.
6. What is the object, and what the value, of drill ?
7. What steps would you take to arouse and maintain enthusiasm for some sport or sports in your class ?
8. Do you consider physical education to be one of the duties of the class teacher ?
9. Discuss, and give your opinion of, the following :—
 - (a) *Mens sana in corpore sano.*
 - (b) Mental and moral elevation can only be attained by physical abasement and asceticism.
10. Mention some of the ways in which the physical benefits received in the playing-field are nullified or counteracted in the class-room.

11. To what extent and in what way is it desirable that a teacher should concern himself with the games and recreations of his scholars?

12. What are the moral effects of physical exercises?

13. Write a short essay on the interaction between moral, *physical*, and intellectual activity.

14. Show how the study of physiology suggests rules and precautions to the teacher.

15. What are your responsibilities as to the physical well-being of students while in your charge, whether in the class-room or playground?

16. Write brief notes on the various forms of physical exercise adopted in your own school, discussing their merits and the demerits that you notice in their actual practice. What precautions will you take in sending your pupils for competition at the Inter-School Athletic Sports?

17. Discuss the value of games in school life, and say what games are most suitable to the children familiar to you (English, Indian, boys or girls).

18. On what grounds is drill and gymnastics made compulsory as a school subject? Which is the best time for it, and why so? What precautions will you take in conducting a drill class?

19. Is there any system of medical inspection of pupils adopted in your school? In what ways, and to what extent, may such an inspection prove beneficial to the child as well as to the community, if it be adopted in your school?

20. What are your views on the subject of physical exercise for (a) boys, (b) girls? Discuss the relative values of (1) recreation in the form of games, etc., and (2) regulated drill or gymnastics.

21. Public schools are sometimes charged with manufacturing a race of short-sighted people. Can this be said of schools in India? If so, can the charge be obviated?

V.

1. What do you consider to be the qualifications necessary for the work of teaching?

2. Comenius said: "The teacher should be an example in

person and conduct of what he requires of his pupils". Elaborate this, and say where you think the Indian teacher is most inclined to fall short of this ideal.

3. Discuss "The teacher is the artificer of mind and noble life".

4. Write notes as for the guidance of a young teacher in the use of his voice.

5. "The child is an imitative animal." How has this truth a special interest for the teacher with regard to the latter's conduct, appearance, and manner in the class-room?

6. What do you consider to be the extra-mural duties of the Indian teacher?

7. "The teacher is the child's guide, philosopher, and friend." Elaborate this statement.

8. Describe briefly the ideal teacher (*a*) for boys of from seven to ten years of age, and (*b*) for boys of from fourteen to seventeen years of age.

9. How far are the following descriptions to be considered as praise?—

(*a*) He is a very strict master.

(*b*) He is a severe teacher.

(*c*) He is a most kind master.

(*d*) As a teacher he is very lenient.

(*e*) He never punishes a boy.

(*f*) He always punishes every fault.

10. What is the proper relation between the teacher and the parent or guardian?

11. How far is the teacher concerned with the doings of his scholars out of school and away from the school premises?

12. What qualities are required in a teacher to enable him to govern his school through his scholars? What practical rules should he lay down for himself as regards rewards and punishments to ensure this end?

13. Why is it necessary for a teacher to preserve his self-control in managing a school or class?

14. "'Sympathy,' says Miss Edgeworth, 'is our first best friend in education'." Discuss this.

15. How far is it desirable for the teacher to keep in touch with the parent?

16. Say what you consider to be the chief defects of Indian schoolmasters; and give one brief instruction how to avoid each of them.

17. Compare the relation of the teacher to the child with that of the parent.

18. Discuss "No bad man can be a good teacher".

VI.

1. "No two boys are alike in character." Discuss this, and show how the fact concerns the teacher.

2. "I prefer the active, if mischievous, boy to the lethargic boy who never breaks a rule." Do *you*?

3. Show that it is the duty of the teacher to regard the child as a growing and developing organism and not as an empty vessel which needs filling.

4. At what age do children need most skilful and expert training (a) morally, (b) physically, (c) mentally.

5. What forces help the teacher and what forces hinder the teacher in the education of the child?

6. "They who would teach children well, must first learn a great deal from them." Discuss this.

7. How would you deal with conceited, sulky, careless, lazy, and insolent children, respectively.

8. "The boy is father of the man, and as the twig is bent the tree will grow." Discuss this and its interest for teachers.

9. How far is it true to say that in the past the Indian schoolboy has suffered from a faulty conception of the aim and object of education?

10. What can be done in school to make hearing more sensitive and exact, or to improve the voice?

11. Give a short explanation of the "social environment of a child".

12. Discuss the educational function and the value of intellectual sympathy between teacher and pupil.

13. Define imitation and estimate its educational value. Is it ever excessive in children from the educator's point of view?

14. How would you train your pupils in good manners? In what respect would you expect pupils so trained to differ from those whose training has been neglected?

15. Classify troublesome boys and say how to deal with them.

VII.

1. Describe briefly the ideal class-room.

2. What can Indian teachers do to improve their class-rooms without any expenditure of money?

3. How far do you think daily environment affects character and temperament?

4. What steps do you take to make your class-room wholesome, attractive, and, in itself, educational?

5. How would you propose to make your scholars take an interest in their class-room?

6. Enunciate a few important rules and regulations for boys' conduct and procedure with regard to the class-room.

7. What do you consider to be a fair-sized class, and what the dimensions and furniture of the class-room for it?

8. What should be the position of the class with regard to the doors and windows of the class-room?

9. How would you arrange eighteen dual desks in a class-room measuring 20 by 15 feet, and having windows along one short, and one long, wall, and doors in the other walls? Illustrate by a sketch.

10. Describe some useful methods of covering and ornamenting bare class-room walls cheaply.

11. "The question of floor space is an important one, but not nearly so important as that of ventilation." Discuss fully what this opinion of Dr. Carpenter implies.

12. What points require attention in the choice of desks? What are the most important points in the construction of a time-table? Mention some books or series of pictures useful in the class-room.

13. Give practical rules for (1) the use of the blackboard ; (2) making yourself heard in the class-room.

14. What seating, writing, and other such arrangements have you made in your own class-room on hygienic principles, bearing in mind the structure and position of the room ? Illustrate them by a ground plan, stating the form and size of each seat and the dimensions of the room.

15. What are the commonest faults in school desks and seats ? Explain what you would substitute. In a vernacular school the children habitually sit on the floor ; is this good ?

VIII.

1. What is meant by good discipline ? What are the means and ways of improving discipline ?

2. Describe some of the ways in which a teacher loses the attention of his class.

3. Illustrate from your practical experience, in a day school or elsewhere, the vital importance of securing good order in a school.

4. What do you understand by the *tone* of a school ? How far and in what ways is it under the control of a teacher ?

5. What are the causes of, and remedies for, restlessness in a class of children ?

6. What is the difference between voluntary and involuntary attention ? Give some examples of both, and of the conditions under which the power of fixing and concentrating the attention of scholars may best be strengthened.

7. Give your opinion as to the value of rewards and punishments ; and state the principles on which you think they ought to be administered.

8. State the considerations that should be present in the use of praise. What is the force of rebuke, and how should it be tempered ?

9. Why should young teachers be restricted from the use of corporal punishment, (a) for the sake of their scholars ; (b) for their own sake ?

10. Show that the inattention in a class may proceed from the faults of a teacher, or from causes other than faults in children themselves.

11. The term discipline is variously employed by writers on education. Discuss their views and select your own definition.

12. What opinion have you formed respecting the giving of lessons or impositions as punishments? Give reasons for your answer.

13. Distinguish between government and discipline. On what principles must the former be based in order that it may gradually give place to the latter?

14. What are the objections to corporal punishment? By what means can you diminish the necessity for using it; and what other forms of correcting children's faults appear to you to be more legitimate?

15. Distinguish between analytical and synthetical teaching. Which of these methods is generally better suited for object-lessons, and why?

16. Faulty lessons partake too much of the nature of a lecture, an examination, or of a chance conversation. Develop the statement.

17. Explain what is meant by the maxim, "Proceed from the concrete to the abstract," and illustrate its educational value.

18. What do you understand by *method*? In what sense (if any) is the method of teaching one and the same for each subject, and in what sense is it different?

19. What is meant by the term *illustration* in teaching? Name the various kinds of illustrations available, and state any errors which should be guarded against in their use.

20. Explain and illustrate the difference between the inductive and deductive methods of arriving at truth.

21. Detail some of the methods by which a healthy appetite for knowledge may be encouraged in children.

22. What is meant by training the observing faculty of children? Is this a separate branch of intellectual education? Can it be reduced to a methodical form?

23. Discuss the use of sense training, and explain the methods of training the observation through sight and touch, singly or in co-ordination with each other.

24. What is meant by the faculty of observation? How would you endeavour to cultivate it (a) in a town school, (b) in a rural school?

25. What is meant by the training of the senses? What are the proper place and value of this training in general education? Examine the assertion (a) that the senses do not need training; (b) that they can be overtrained.

26. What do you understand by observation? Do you consider it necessary to train all children to observe? Give full reasons for your answer.

27. Distinguish between observation and experiment. What use does the teacher make of this distinction?

28. What is meant by exercising the senses? Discuss the question whether a high degree of sense-discrimination should be made a chief aim in education.

29. It is said that the senses do not give us knowledge, but only the materials out of which knowledge is built up by the mind. Explain what is meant, and bring out by reference to an object-lesson the bearing of this point on the proper method of object teaching.

30. What are the aims and the methods of the educator in exercising the powers of observation? Does the training of observation belong to one particular stage of education, or should it be continued throughout?

31. How would you cultivate the observing powers in the successive stages of education?

32. Describe memory. How far does memory differ in character in different individuals? Upon what conditions, physical and mental, does a good memory depend? Explain the reason for Goethe's statement: "When interest goes, memory also goes".

33. Show how a habit of close observation of the distinctive characteristics of objects may be best cultivated in young children.

34. What are the principal conditions necessary for rendering an object-lesson in observation effective?

35. What is meant by the "inductive method" in teaching, and to what extent is it analogous to the process of scientific discovery?

36. Show how the inductive method of reasoning may be employed in lessons on familiar natural phenomena, e.g. the seasons, snow, dew.

37. "We cannot properly observe unless we can describe what we observe" (Mill). Carefully consider the relation of observation to description in connexion with intellectual operation.

38. Distinguish between induction and deduction. Contrast scientific induction with empirical generalization, and explain any one method of scientific induction. Illustrate by reference to school work.

39. "Through facts to principles." Explain this.

40. Describe carefully the value of pictorial illustration in class teaching. What dangers have to be guarded against in the use of pictures?

41. Define emulation, imitation, and the desire to excel, in their relation to one another, and compare their value as motives in education.

42. What bearing ought the fluctuations of mental energy during the course of the day to have (*a*) on the school time-table, (*b*) on play, (*c*) on the evening work?

43. Bring out the meaning, with a concrete example, of the feeling of rivalry.

44. What use would you make of emulation in a school? How would you guard against its dangers?

45. Write a short note on the love of approbation, and show its bearing on the work of education.

46. "Children should be *told* as little as possible and induced to *discover* as much as possible." How would you carry out this principle in the teaching of chemistry?

47. What are the chief functions of punishment? Explain psychologically why natural punishments are (when possible) better than arbitrary ones.

48. What opinion have you formed respecting the giving of lessons or impositions as punishments? Give your reasons.

49. What limits would you set to the discipline of consequences in dealing with the young.

50. What evil effects does Locke attribute to corporal punish-

ment? How far does the prevailing sentiment of the present day support his statements?

51. On what principles would you construct a time-table for young children? Draft a model time-table for Anglo-Vernacular or European Standard II.

52. Arrange a weekly time-table for any *one* of the following: (a) An infant class in a European School, (b) Standard III in an Anglo-Vernacular School, (c) Standard VI in a Native High School. What do you consider to be the chief points to be observed in drawing up such a time-table for the class you select?

53. "Make your teaching interesting". "Teach so that interest may awaken, and remain active throughout life." Examine and compare these two sayings.

54. What are your own views about corporal and moral punishments? What common offences had you to deal with in the case of your own pupils this year, and how did you meet them?

55. What are the principles on which a time-table should be drawn up?

56. "Teaching is for the whole class." Explain the meaning of this, and point out the practical rules to be deduced from it.

57. Illustrate various means of developing the self-activity of children in class lessons.

IX.

1. What are the advantages and disadvantages of place-taking? What practical corollary should you draw as to the limits within which it should be used?

2. What are the advantages and disadvantages of setting scholars in a class to question one another at the end of a lesson?

3. Give some reasons why children should be trained to answer in complete sentences.

4. Explain the difference in the nature and purpose of questions employed at the beginning, during the course, and at the close of an oral lesson.

5. What is meant by a good style of questioning, and what are the tests by which you would distinguish a good from a bad question?

6. Classify questions, and show the uses of each kind of question. Give illustrations.

7. Estimate the value of questioning as a teaching device.

8. What are the essentials of good questioning? Give examples of bad (and common) types of question.

9. Give specimens of good testing, training, and recapitulatory questions respectively; and of the kind of question to be avoided, with reasons.

10. Show how a child may be made to tell what he did not know by means of questioning without telling.

11. Indicate the importance of the simile in teaching.

12. Write a brief essay on Illustration in Education.

13. Show the advantages of use, and dangers of abuse, of illustrations in teaching.

14. In which classes, and to what extent, would you allow the use of notebooks by schoolboys?

15. Estimate the value of the system of mark-giving. Describe the best method of allotting and recording class marks.

16. Indicate the importance of a careful study of the art of questioning.

17. State your views about the right use of recapitulation in teaching.

18. Discuss the use and abuse of examinations.

19. How far are competition and emulation desirable features of an educational system?

20. What are "training" questions? In which stages of your lessons should they be made use of?

Illustrate your answer by a series of such training questions as you would put in giving the first lesson on

(a) The square of the difference of any two numbers is equal to the sum of their squares diminished by twice their product (algebraic proof); and

(b) The sum of the angles of a triangle is equal to two right angles (theoretical proof).

21. Indicate the importance of the teacher's skill in the art of questioning.

22. Discuss the use of pictures in teaching various subjects;

give the characteristics of suitable pictures, and make suggestions how to procure and use them.

23. What use should be made of hours devoted to the vernacular? How far should the vernacular be employed in other hours?

24. Mention the chief points requiring attention in framing questions and explanations. Write out explanations and questions on the following passage suitable for Standard VI: "Good manners are to particular societies, what good morals are to society in general; their cement and their security. The immoral man who invades another's property is justly punished for it; and the ill-bred man, who, by his ill-manners, invades and disturbs the quiet of private life, is, by common consent, as justly banished society. For my own part, I really think, next to the consciousness of doing a good action, that of doing a civil one is most pleasing."

25. Discuss

(a) The introduction of the Vernacular in the course of work which is supposed to be done in English; and

(b) The best use of Vernacular hours in higher standards, in the interests of the Vernacular.

26. State generally how and when you use the blackboard in class teaching.

27. Examinations are condemned by some on the score of their encouraging cram and being like the digging up of a flower to see how it grows. How would you answer these objections?

28. What are the characteristics and limitations of good questioning?

X.

1. What do you understand by Socratic questioning?

2. Discuss the statement "Socrates taught everything and told nothing". How far are the Socratic methods applicable in the education of children to-day?

3. What are the principles of the Socratic method of teaching?

4. What do you understand by the Herbartian principles of education?

5. Discuss the desirability and possibility of complete correlation of studies.

6. What were Herbart's views on the importance of an ethical aim in all education?

7. To what extent would you advocate the adoption of Herbartian methods in Indian High Schools?

8. What do you understand by the Heuristic Method?

9. Is the principle underlying the Heuristic Method applicable in the teaching of other subjects than science?

10. What are the advantages and drawbacks of the so-called Heuristic Method?

11. Show that the essential principles of the various special methods of education (such as the Heuristic, Herbartian, Socratic, etc.) are only special developments and applications of the great law "Follow Nature".

12. Write brief notes on the "Heuristic" Method, and sketch the course of a first lesson (on this method) on either of the following :—

(a) Burning as a chemical change.

(b) The earth's rotation on its axis.

13. Sketch the course of a first lesson on "Heuristic" principles on one of the following :—

(a) Breathing as a kind of oxidation.

(b) The solar Eclipse.

(c) The brain as the organ of mind.

14. What were the characteristics of the Socratic Method of teaching? How far can it be profitably made use of in your class-teaching? Illustrate your answer by framing a series of such Socratic questions on a particular lesson in mathematics or science.

XI.

1. What do you understand by the "Direct" Method of teaching English to Indian children?

2. What are the peculiar difficulties and dangers in the path of the teacher of English by the "Natural" or "Direct" Method in this country?

3. A child learns its own tongue under the stimulus of necessity and with the constant help of environment. How can these be supplied in the teaching of English to Indian children?

4. Show how the Direct Method of teaching English is the only natural, rational, and scientific way of teaching it.

5. Expose the fallacy underlying the argument that until a child knows grammar, which is "the art of speaking correctly," he cannot speak English.

6. How would you give the first six lessons in English to Standard I?

7. How, when, and why, would you teach grammar when teaching English?

8. Describe carefully your method of teaching a class of beginners to say and understand, "I drop a rupee on the table".

9. When teaching a class of beginners by the Direct Method, what steps would you take to assure yourself that they understood the sentences they learnt?

10. How far should the Vernacular be employed in teaching English (to Indian beginners) by the Direct Method?

11. Criticize, "For the training of mere memory, science is as good as (if not better than) language. It has an immense superiority in the kind of memory it trains."

12. "Repetitio mater studiorum." What methods do you employ to secure repetition so as not to extinguish curiosity and encourage mechanical habits? Illustrate your answer with reference to the teaching of language.

13. (a) Describe briefly an inductive lesson on the meaning of the term "verb". (b) A deductive lesson on the same subject. (c) State, with reasons, your views as to the use of inductive and deductive teaching in the subject of grammar.

14. How far can the teaching of English grammar be made to bear practically upon the oral answering and written exercises of scholars?

15. In what order would you teach the parts of speech? Give some examples of the exercises by which you would make it clear that the class to which a word belongs depends entirely on the way in which it is used, and that the same word may often be used in several different ways.

16. Suppose you were giving a first lesson on the adjective to a junior class, how would you set about it, and what illustrations would you give? What is your definition of an adjective, and at what point in your lesson would you give the definition to your class?

17. Grammar has been sometimes defined as "the art of speaking and writing the English language with propriety". How far does this definition appear to you to be true or adequate? By what expedients other than the teaching of technical grammar is it possible to enrich a scholar's store of words and to encourage precision in the use of them?

18. Discuss the Direct Method of teaching foreign languages.

19. Explain the scope of the study of phonetics and its use to the teacher of a foreign language.

20. Explain the principles of the Direct Method; point out its special difficulties and dangers.

XII.

1. In teaching the elements of reading to young children say whether it is better to begin with little words and afterwards call attention to the letters, or to begin with the alphabet and afterwards make up simple words. Give your reasons.

2. What do you understand by the "Look and Say" method of teaching reading? Do you advocate the use of this system? What are its special advantages?

3. What is meant by tone, accent, emphasis, and expression in reading? Say why they need special attention, and how you can best deal with them.

4. What is meant by distinct articulation in reading? Name any English words which present special difficulty to learners, and mention any form of exercise that is most useful in correcting faulty articulation.

5. Describe exactly how you would conduct a reading lesson with Standard V of an Indian High School.

6. What especial care would you bestow upon the less advanced readers in your class before, during, or after the reading lesson? How can home lessons be utilized for teaching reading?

7. Estimate the importance and value of the power to read (a) expressively, aloud, and (b) intelligently, silently.

8. What is meant by simultaneous reading? How should it be conducted, and what is the use of it?

9. What special help should be given to an older child backward in reading, to obviate his being placed in a class of younger children? What harm would it do a child to be so placed?

10. Name the requirements of a good reading book. What are the most common faults in early books for children?

11. What is the proper way to utilize the school library so as to get the maximum of utility?

12. Name a few English words which are specially difficult for young children to read owing to the presence of silent letters.

13. Name some of the qualities of good reading. What does tasteful reading imply, and how can it best be cultivated in school?

14. Explain the use which a teacher should make of simultaneous and of pattern reading, and say what objection (if any) there is to an excessive use of either method.

15. Explain how the reading of dialogue and recitation may be employed to remedy want of intelligence in reading. For what reasons should more than one set of reading books be employed in one class?

16. Describe any method for getting the maximum of reading practice in the reading lesson without resorting to simultaneous reading.

17. What are the commonest faults which you have found in the reading of children? How would you correct these faults?

18. What steps would you take to improve the stammerer, the gabbler, the singer, and the mumblor respectively in the reading lesson?

19. It is sometimes complained that children do not read well because their reading lessons are constantly interrupted by the oral spelling of the more difficult words. Do you consider such interruption necessary, and if not, how may good spelling be attained without it?

20. Give some rules which you intend to follow for securing (1) distinct articulation; (2) intelligent expression in reading.

21. Say what sort of reading lessons you have found most interesting to young children, and describe the way in which you would try to secure distinct articulation.

22. What means would you employ to lead pupils to understand the meanings of new words? Illustrate by an abstract word, a concrete word, and a word having a figurative meaning.

23. Describe some of the different methods employed in teaching young children the first steps in reading. State which you would use, and give your reasons.

24. Mention some of the common difficulties to be overcome in teaching children to read, and state how you would surmount them.

25. Do you advocate the reading of fairy tales by children?

26. Describe a good English "reader" for middle standards.

27. Discuss methods of teaching beginners to read with reference to either English or the Vernacular. State briefly the points requiring attention in reading aloud.

XIII.

1. Describe the proper position of the body for writing, the right mode of holding the pen, and the best way of setting copies for advanced classes.

2. Indicate the importance of good hand-writing throughout the school.

3. What use would you make of the blackboard for teaching writing? In what classes would you use it?

4. What are the chief causes responsible for the general bad writing of Indian schoolboys?

5. Give some simple rules showing the best way of conducting a class lesson in writing.

6. What are the chief difficulties to be encountered by a child beginning small-hand copies? How would you deal with them?

7. Show the physical dangers of a wrong position in writing.

8. Arrange the small letters of the alphabet in the order of their difficulty for the teaching of writing; and show how you would group together the easiest of them for lessons for young beginners.

9. Describe carefully the first six lessons to a class of beginners in English hand-writing.

10. What are the characteristics of good writing? Upon what do they depend, and how may they be secured?

11. What is the moral education derived from careful writing in all paper-work done in school?

12. What are the advantages of teaching large hand before small or running hand, and how far is it desirable to continue large-hand practice in the upper classes? Give a model copy in each hand.

13. Show how you would group the capital letters in the English alphabet for teaching their script forms.

14. In writing in copy-books there is a great tendency to repeat the same mistake down the whole page. What is the best method of correcting this?

15. What are the chief points requiring attention in the teaching of writing? How can good writing be secured throughout a school?

16. What steps would you adopt to improve defective hand-writing in a class?

17. What are the characteristics of good writing? Upon what do they depend, and how may they be secured?

XIV.

1. What do you consider to be the advantages of children learning recitation? How may these be secured?

2. What are the common faults and their causes in the English recitation in Indian schools?

3. Enunciate and exemplify a few rules which you would consider useful for securing expressive recitation in senior classes.

4. How can the recitation lesson be utilized for moral training?

5. What preparatory work should be given to a senior class before the scholars are allowed to commit a passage of poetry to memory?

6. Suggest three suitable poems for recitation of each of Standards IV, V, VI, and VII in this country.

7. On what principles would you make selections for recitation in the case of (a) infants, (b) juniors, (c) senior scholars, respectively?

8. How would you cure (a) a sing-song style, (b) an unnatural pitch of voice, (c) lack of expression, in recitation?

9. Discuss the influence which the careful preparation of the recitation must have upon the upper classes of a school.

10. Describe your exact method of procedure in giving the *first* lesson in recitation to Standard VI in the verses :—

The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea,
The ploughman homeward plods his weary way,
And leaves the world to darkness and to me.

Now fades the glimmering landscape on the sight,
And all the air a solemn stillness holds,
Save where the beetle wheels his droning flight,
And drowsy tinklings lull the distant folds.

11. Why do we teach recitation?

12. What are the objects aimed at in setting recitations, and how far are they secured in your school?

XV.

1. At what stage in his High School career should an Indian boy commence to learn English composition?

2. Describe exactly your method of procedure in a composition lesson to Standard V, if the story of the Fox, the Crow, and the Cheese was to be "reproduced".

3. What do you understand by oral composition.

4. Detail your method of giving Standard VI their first essay-writing lesson. Subject, "My School".

5. What are the common faults of the Indian schoolboy's essay, and how would you propose to correct them with a view to preventing their recurrence?

6. What steps would you take to make story-reproduction as much a creative effort and as little a memory-exercise as possible?

7. Indicate some suitable and desirable topics for essay-writing for Indian boys, and show how you would make Standard VI *prepare* to write on one of them.

8. What are the main causes of the present low level of achievement by candidates for matriculation at the Indian Universities, in the matter of essay-writing?

9. How would you cure a tendency to rambling, incoherence, omission of punctuation, use of long inappropriate words, and illegible writing in the composition of Standard VI.

10. Give a few important rules to be observed by the teacher in teaching composition, and a few to be observed by the class in writing it.

11. Show that grammar and composition may be taught simultaneously from the first.

12. Point out some of the common mistakes of the composition of children as regards the use of relative pronouns, conjunctions, and punctuation.

13. Describe the best exercises you know in English composition, and the best way of correcting them.

14. Give some directions for teaching composition in the middle standards, with reference to either English or the Vernacular.

15. What is the value of essay-writing? At what stage should it be begun, and what method of instruction should be employed?

16. Describe a method of teaching composition to the matriculation class.

17. Discuss the aims and methods of teaching English composition in the highest standard.

18. What part should memory play in the writing of composition?

XVI.

1. What is the value of paraphrase as a class subject?

2. Discuss the remark; "A schoolboy cannot be expected to improve upon Shakespeare; why then let him paraphrase extracts from his writings?"

3. What fundamental rules do you lay down for the observance of your class when paraphrasing a poetical extract?

4. Describe your method of procedure in paraphrasing the following extracts with Standard VI.

Let not Ambition mock their useful toil,
Their homely joys, and destiny obscure.

Not you, ye Proud, impute to these the fault
If Memory o'er their tombs no trophies raise,
Where through the long-drawn aisle and fretted vault
The pealing anthem swells the note of praise.

5. What do you understand by transposition, synonymic substitution, and annotation in paraphrasing. Estimate their importance?
6. What is the proper way to teach paraphrase?
7. What are the common faults of the paraphrases of Indian schoolboys? How would you propose to eradicate them?
8. Are you in favour of the retention of paraphrase as a class subject? Give your reasons.
9. When, and why, would you introduce oral paraphrase, and how far would you use the Vernacular when paraphrasing English?
10. Give some rules for the teacher, and some for his scholars, to observe in the paraphrase lesson.
11. Examine the value of paraphrasing as an exercise in language. Give, as to a pupil teacher, some rules which should be observed in attempting to paraphrase a poetical extract; and add a brief example of a good paraphrase of your own, of some familiar verse.
12. What is the educational value of paraphrase as a class subject?

XVII.

1. What do you consider to be the most useful aids to the systematic teaching of History? State what use you would make of each.
2. What are the objects to be kept in view in the teaching of History in schools; and what kinds of historical facts possess most interest and value in the instruction of young children?
3. Outline your first few lessons in the history of England to beginners.
4. Name some of the commonest faults in teaching History, and state how they may be avoided.
5. To how many of the senses could you appeal in teaching History to beginners?

6. Name some stories from Indian history that you have found to be most attractive to young children, and explain simply the causes of their attractiveness.

7. What plan would you follow in giving a description of some famous battle? Illustrate your answer by the battle of Plassey or Waterloo.

8. State or describe the doctrine of association of ideas, and illustrate by showing the applications of it in the learning of History.

9. How may visits to ancient buildings serve to illustrate lessons in English history?

10. Show the use of ballad poetry in the teaching of History, and illustrate your statement by some historical ballad.

11. What general principles should be kept in view in teaching History to higher standards?

12. Show by what means History can be taught in "regressive" order. Write out the chief topics to be selected for a lesson on the reign of one of the kings of England.

13. It is sometimes said that one of the best ways of teaching History is by means of biography. Explain this. Name five or six persons whose biography would throw great light on Indian history of the eighteenth century, and give a slight sketch of one such biography.

14. In giving a lesson on Akbar, show what use you would make of comparison, and contrast with any other character in Indian history.

15. Show how you would combine important events that ought to be remembered with interesting details in teaching History. Illustrate, by sketching, the points you would introduce into a lesson on the Revolution of 1688.

16. What is the value of biography in teaching History? Illustrate your answer by a practical example.

17. Dr. Arnold says that "by our careful study of some one period we have learnt a method of proceeding with all." How, and at what stage, would you provide for such a study? Illustrate your answer by reference to some period of Indian history.

18. What is meant by the "Concentric" Method of teaching History. What are its merits and defects?

19. Explain carefully what you understand by the Concentric Method of teaching History, and briefly summarize its advantages.

20. In teaching History show how the principles of "association of ideas" may be utilized. Show the necessity of giving a knowledge of the geography of a country in teaching its history.

21. What is the ultimate object in learning History so far as schools are concerned?

22. In teaching History, say what use, if any, you would make of chronological tables. Is it better to learn the date before or after the pupil knows something of an event and becomes interested in it? Give your reasons.

23. What is meant by the evolutionary method of teaching History? Discuss its advantages.

24. Explain why History is a difficult subject for schools, and discuss the type of History that should be taught there. What particular qualifications are essential for a successful teacher of History?

25. What means can you suggest, besides the use of a text-book, for making the History lessons profitable to older scholars?

26. What objects should be kept in view when teaching History? How would you give a lesson on the reign of Akbar, in order that your pupils might receive both intellectual exercise and moral training?

27. Why and how should History be taught?

28. Discuss the general and special difficulties of teaching History in European or Native High Schools in this Presidency. What particular qualifications are essential for a successful teacher of History?

29. Estimate the importance of the study of History, and contrast the average real, with the ideal, history lesson.

30. Discuss the aims and methods of either (a) History teaching, or (b) English composition in the highest standard.

XVIII.

1. How would you begin teaching Geography to a class of young children? Give the substance of a few of your first lessons.

2. Discuss the comparative value of memory of words and memory of things. In what way may they be cultivated? How could you use them in a Geography lesson for beginners?

3. Name the different purposes which should be kept in view in the teaching of Geography; and state by what means they can be best attained.

4. (a) What should be the aims in teaching Geography? (b) What is the educational value of this study?

5. How is the teaching of Geography promoted by the use of blank maps, by maps of a familiar locality, and by map-drawing?

6. Show the uses and dangers of learning by heart, and illustrate these in the case of a lesson in Geography. Mention parts of school work in which this method is essential, and parts in which it should be used sparingly.

7. By what illustrations would you give children their first ideas of mountains and rivers (a) from their own experience, and (b) on the blackboard?

8. Illustrate deductive and inductive teaching in Geography. Discuss the proper use of deductive teaching.

9. State the chief points to be noticed in giving a lesson on a river, with the order in which each point should be introduced to the class. Illustrate your answer by reference to some English or Indian river.

10. Point out some of the means by which the attention of the class may be sustained through an oral lesson of thirty minutes' duration on Geography, so that the dull or backward children may not be allowed to suffer.

11. What is meant by the "build" of a country? Illustrate the influence which the build of the country has had upon the past and present conditions of either India or Great Britain.

12. How would you teach the meaning and use of a map, and how would you give the children the idea of scale?

State fully the purposes for which a blackboard may be used in lessons on Geography.

13. Contrast the modern methods of teaching Geography with what was found in schools twenty years ago.

14. Show that a map differs from a picture, and explain how

you would supply the deficiencies to a class beginning to learn Geography.

15. Describe fully the relative advantages of questioning children in Geography (*a*) out of sight of any map, and (*b*) with a map before them, on which there are no names of places ; and state the best way of combining these two methods of examination.

16. In giving a lesson on a river, which is a better plan—to speak first of a particular river which the children have seen, or to start with a definition and a general description ? Give reasons for your opinion.

17. Discuss the various provinces of Geography, and compare their values as subjects of school study.

18. Draw rough sketches of such illustrations as you would place in larger scale on the blackboard, in order to teach a class how the shape of the earth is proved.

19. Draw up notes of a general lesson on the physical geography of either England or India.

20. Describe the sort of apparatus and visible illustration which is likely to prove most helpful to a teacher in giving the earliest lessons in Geography.

21. What is physical geography ? What difficulties does it present to young children, and how can they be overcome ?

22. After explaining to a class the effect of mountain ranges on climate, show how you might lead the children to seek further proofs for themselves.

23. Write full notes of a lesson on some aspect of the physical geography of India, indicating exactly how you would train the observation and reasoning powers of your pupils, as well as the memory.

24. Sketch the general plan of procedure which you would adopt in giving a series of lessons on the geography of a country.

25. What apparatus for teaching Geography may be made by teachers and elder scholars ? Describe the process of manufacture in any one case.

26. What steps would you take to make your geography lesson practical, interesting, educationally scientific, and calculated to train the powers of observation and deduction ?

27. How do you endeavour to make your geography lessons—
 (a) Interesting ;
 (b) Developing to the observation and reasoning powers of the pupils ?

• Illustrate your answer by the outline of a lesson on one of the Indian rivers.

28. What is the ultimate object in teaching Geography ? Show how geography lessons may be made useful as a means of training.

29. Describe a good atlas for school use.

30. Give a sketch of a typically *bad* lesson in Geography. Point out what you consider the faults in it, and give reasons for your opinion.

31. Describe the ground which should be covered by a first year of instruction in Geography.

XIX.

1. What purpose or purposes has a teacher in view in teaching arithmetic ? Show what special mental faculties are called into exercise in the study and practice of the subject, and give examples.

2. In teaching arithmetic, point out the advantage of analysing a sum so as to show the significance and value of each figure. Illustrate your answer by a full analysis of a problem in either compound division or practice.

3. Give as many forms of mental exercise as you can contrive on the number 24.

4. What caution is necessary in communicating what are called "short methods" of calculation ?

5. Make four sums—two in direct and two in inverse proportion—and show how you would explain to a class the working of one of them.

6. Distinguish the teaching of the rule of three by the method of unity and by proportion, and compare their advantages.

7. By what means would you teach simple subtraction to a class of young children ?

8. How can an appeal to the eye be made in teaching division of fractions ? Why should fractions be taught before proportion ?

9. In what way may the tables of weights and measures be most easily taught to children?
10. In teaching children to work problems in arithmetic, show and illustrate your method of procedure when dealing with a question of a new type.
11. Describe the best system you know for teaching numeration and notation.
12. Frame twelve suitable oral exercises calculated to facilitate the study of fractions.
13. What other visible and tangible means besides the ball frame are useful in teaching young children to count?
14. What limits would you set to the committing of "tables" to memory, and why?
15. What methods of instruction can you suggest for securing that children shall be able to reason out the solution of arithmetical questions for themselves?
16. To what common uses may the avoirdupois, liquid, long, and square measure tables be applied? Give examples of such mental problems as you would employ in order to make each of these tables interesting to beginners.
17. How would you give the first notions of number to little children? What means would you adopt if you had no apparatus for this purpose?
18. Discuss the merits and demerits of the various processes used in teaching subtraction. Which of these have you adopted in your class teaching, and why?
19. What are the chief uses of mental exercises in arithmetic? Give some examples of oral exercises in concrete forms that you can contrive on product and factors, as illustrating the process of both multiplication and division.
20. Sketch the course of a first lesson with special attention to the educational maxims and devices on vulgar fractions, or the metre and its multiples and sub-multiples.
21. What general considerations have you to observe in teaching various rules in arithmetic? Illustrate your answer with particular cases.
22. At what stage and in what manner will you give the first

notions of decimals? Draw up brief notes to show the line of procedure you would adopt in this lesson.

23. Write notes of a first lesson on decimals to a class that has just completed its course of vulgar fractions.

24. Of the three chief processes—the Rule of Three, the Unitary Method, and the Equational Form—which would you adopt in teaching arithmetical problems on everyday transactions in life, and on what grounds?

25. Estimate the value and scope of (a) home-exercises, (b) drawing, and (c) blackboard summary, in teaching mathematics to various classes of our secondary schools.

26. Draw up notes, with special attention to method and devices, on *one* of the following to be treated as a new lesson:—

(a) Discount and present worth;

(b) The factorization of trinomials of the form $x^2 - 7x + 10$;

(c) If two sides of a triangle are equal, the angles opposite to these sides are equal.

27. Show that the product of two fractions may be smaller than either of the factors, and prove the following by a diagram $\frac{1}{4} (\frac{3}{4} - \frac{1}{2}) = \frac{1}{8}$.

28. In what sequence will you teach fractions as a new topic, and how will you impart its first notions to a middle school class? What various points have you specially to bear in mind while teaching its various operations?

29. What precautions will you take to avoid mental fatigue and over pressure, in framing your class time-table so far as mathematical lessons are concerned?

30. "Our lessons," says Herbert Spencer, "should start from the concrete and end in the abstract." Discuss this saying, and show how you would apply it in giving a lesson in mathematics.

APPENDIX II.

A SCHEME OF EXERCISES FOR MUSCULAR
DEVELOPMENT.

“Mens sana in corpore sano.”

APPENDIX II.

PHYSICAL EDUCATION WITHOUT APPARATUS.

A YEAR'S COURSE.

A CHILD who grew up in a school of physical culture and attended no other, would not receive an education calculated to fit him to take his place in the world as a fully developed being—because his mind would be undeveloped and untrained, and he would be merely a magnificent animal. On the other hand, a child who grows up in an ordinary school, where the mind only is trained, does not receive the education which will best fit him for life's struggle—because his body is untrained and undeveloped—and as the other child would approximate to the mere animal, so does he approximate to the mere intelligence. Doubtless the last state is not worse than the first, though opinions may differ as to whether it is better to be a healthy bruiser, or an unhealthy senior wrangler. Certain it is, that it is best of all to be a strong, healthy, active, and muscular individual with a well-developed, well-stored, keen, and retentive mind, and a reliable, steadfast character. The production of persons of this type should be the object of every schoolmaster—and the goal of every educationist—and he who devotes five or six hours daily to the training of the minds of his students, with never a thought for their bodies, is failing in his duty to his scholars, their parents, and the community in general. The community will not benefit very much more by the production of near-sighted, narrow-chested, round-shouldered anæmic citizens, of unstable, volatile character and hasty, immature judgment (even though they know all Euclid by heart)—than it would by the production of exceedingly powerful, muscular, and healthy ones, of phlegmatic, slow,

and solid character, and of hopelessly unintelligent mind. Organized games are indispensable to the maintenance of the healthy mind in the healthy body—and are the best form of recreation. They are essential to the general bodily health and tone of the student, and are a means of moral training and character-forming, for which *there is no substitute*. The student who goes off for a long solitary walk, is taking an excellent, if not indispensable form of exercise—but the student who takes his exercise in the form of cricket, football, hockey, water-polo, tennis, or other organized game requiring endurance, skill, emulation, discipline, and co-operation, has gained not only the benefits of the exercise—but something which the mere walker could not gain, in pleasurable excitement, moral training, and mental change and recreation.

But to the individual who aims at training, developing, and educating his body with the care and thoroughness with which he is educating his mind—organized games are not enough. That they do all that has been said, is enough to make them essential to every school and college curriculum—but no man can develop and exercise all the muscles of his body by games alone—not if he play half a dozen regularly. If, as is generally the case, he play one or two, he is in danger of overdeveloping some muscles at the expense of others. Many men leave their college quite pleased with their physical condition, when in fact they are distorted and warped in figure—with perhaps, the legs of a Hercules, and the arms and chest of a tailor—or with mighty biceps, chest, and shoulders borne by Chippendale legs. This is not physical culture and education—but physical distortion and deformity. To prevent or counteract this, the boy or man who really desires to educate and develop his body, should procure an anatomical chart showing the muscles—(or use his own naked body as one). He should then take pairs of muscles (e.g. biceps, triceps, the calf muscles, the large muscles of the chest) and devote his attention entirely for a few minutes daily for a month, to that particular pair of muscles. Without the use of any apparatus whatever, the particular muscle under attention can be visibly increased in size, and also improved in tone, hardness, and strength in a month, with a very small expenditure of time and energy, and none of cash. (In the second

month he would continue a brief daily exercise of the muscles trained in the first month; and in the third, of those trained in the first and second, and so on.) Thus at the end of a year the student would find that his body presented an entirely different appearance owing to the individual visibility—if not striking prominence, of the (say) (1) biceps, (2) triceps, (3) pectoralis major, (4) anterior deltoid, (5) gastrocnemius, (6) sartorius, (7) quadriceps, (8) posterior deltoid, (9) trapezius, (10) rhomboideus, (11) trapezius, and (12) rectus abdominis muscles. In the second year he could (in addition to continuing to exercise these muscles) attend to another dozen sets e.g. (1) the flexors of the fore-arm, (2) supinator longus, (3) sterno-cleido mastoid, (4) serratus magnus, (5) obliquus abdominis, (6) adductors and abductors of thigh, (7) tibialis anticus, (8) gluteus maximus, (9) flexors of thigh, (10) biceps of thigh, (11) peroneals, (12) latissimus dorsi. By this time he would be that rare object—a uniformly and perfectly developed man—without those gnarled bumps of muscle in one place, compensated for by entire absence of muscle in other places, which is too often the condition of the present “athlete”—(albeit this is a far better condition than that of having no muscle at all).

By adopting the following course he will attain this condition—and in the case of a teacher can lead his class to attain this condition—without the slightest fear of rupture or strain (so frequently the only result of the usual spasmodic attempts to become a “strong man” in a hurry, by means of weights and heavy dumb-bells), without the least injury to his health, however weakly and puny he may be on commencing, and without any appreciable expenditure of time, energy, or money. The exercise increases very gradually—and his vigour and virility increase with it. It is a better system than that by which he purchases apparatus, and exercises every muscle of his body a certain number of times daily—because by the latter system there is a great danger of his overdoing it at first, and injuring himself, of doing the early exercises of the course vigorously and frequently, and the later ones feebly and seldom, and the last ones not at all; and because very few people know sufficient about their own bodies to concentrate their will-power upon twenty or thirty different sets of muscles one after another in

rapid succession ; and lastly, because the long course of monotonous, mechanical exercises and vain repetition becomes wearisome, irksome, and a burden to the flesh.

We will deal with the necessary steps for the production, enlarging, strengthening, and generally improving of the particular muscle under attention ; and can promise that anyone following out the instructions given, and faithfully persevering with the simple exercises, will have every reason to be exceedingly satisfied with his investment of a little time and trouble (whether for himself or his class), by reason of its hundred per cent. return of health, vigour, happiness, and muscular beauty.

I. THE BICEPS.

The biceps is the large muscle of the front of the upper arm, running from the shoulder to the inside of the elbow. It should rise up into a hard round lump when the fist is doubled and brought up to the shoulder. In most cases it is the best developed muscle of the body—at any rate above the legs—both because it is used in most arm motions, and because the general notion of misguided, but well-meaning, spasmodic users of dumb-bells, is to violently agitate this muscle during their fits of exercising energy—while neglecting all the others. However, we will commence with this muscle, because, among Indian students, it is not as a rule overdeveloped—to say the least of it.

Note.—All exercises must be performed with the muscle bare and it must be watched, if possible, in a mirror.

Exercise 1. Raise the right fist to the right shoulder, making the biceps as big and hard as possible. Look at it, and concentrate attention upon it. Keep it in this position until tired, then relax and repeat.

Exercise 2. Perform the same exercise with the left arm.

Exercise 3. With the right elbow pressed to the side and the upper arm kept steady, raise and lower the fist until tired—*still concentrating thought and will-power upon the biceps—and keeping the fist tightly closed.*

Exercise 4. Repeat with left arm.

This will be quite sufficient, if done regularly daily, with a slight daily increase of the time devoted to it, but it is absolutely essential that *the whole attention be given to the muscle—and that the whole of the performer's strength and effort be put into the "lumping up" of the muscle.* It is no good doing it flabbily and absent-mindedly. Above all let the beginner make no attempt at doing feats of strength. It is not in the least necessary to use a dumb-bell at all—and it is the height of folly to use a heavy one. After the first fortnight a light dumb-bell may be used if desired—but it is not essential—and, if used, should not weigh more than a couple of pounds. The object is *not* to achieve a difficult motion, but to perform a perfectly easy one very many times, with the attention concentrated upon the muscle, and *with the greatest possible tension upon the muscle from one's own strength and will* (and not from a heavy weight—which cannot be exactly proportioned to the strength of the muscle as the tension is from one's own volition). Unless the student obeys this italicized direction and hardens the muscles as though he were trying to lift a heavy weight though his hand be empty—he is losing half the benefit of the exercise.

After devoting a few minutes daily, during the first month, to the development of the biceps muscles, the student should, in the second month, turn his attention to the triceps muscles, and add the exercises suggested below to those which he is already performing.

II. THE TRICEPS.

The triceps is the large muscle at the back of the upper arm, running from the shoulder to the outside of the elbow. It is to be seen in its hardened and contracted form when the arm is pushed backwards, and the hand held as far behind the body, and as high up, as possible.

As when exercising the biceps muscles, the student must watch the muscle in a mirror, and concentrate his attention upon it. He must imagine that he is moving the arm against the strong resistance of the weight of a heavy dumb-bell, or the pull of a strong elastic cord, *and must put as much strain on the muscle by his own*

will-power and strength, as would be put upon it by the actual manipulation of the imagined dumb-bell or elastic cord.

Exercise 1. Thrust the right hand backwards and upwards behind the body as far as possible, hardening the triceps muscles, and imagining that the hand holds a heavy weight. Keep it in this position until the triceps muscle aches. Repeat with left hand.

Exercise 2. Raise the right hand straight up from the shoulder above the head, imagining that the hand is raising a heavy weight with great difficulty. Lower again to the shoulder. In raising and lowering the hand, put as much strain as possible upon the triceps muscle. Try and *feel* it and make it ache. Repeat with left hand.

Exercise 3. Keeping the upper arm close to the body, raise the right hand to the level of the elbow, so that the forearm is horizontal; then imagine that the hand holds the end of an elastic rope hanging from the ceiling, and lower the hand till the arm is straight again. Put great strain upon the triceps muscle, and perform the action of lowering the hand slowly, and as though with difficulty against strong resistance. Repeat with left hand.

Exercise 4. Fling the right hand backwards and upwards rapidly and violently, exactly as in the back stroke in swimming on the side. Repeat with left hand.

Exercise 5. Lie flat on the face with the body resting on the hands and toes. Raise the body to the full extent of the arms, keeping the back straight, and the whole body rigid. Slowly lower the body and repeat.

Any one of these exercises may be selected and practised, or for the sake of variety all may be adopted. Exercise 5 will be found very difficult at first by those whose triceps muscles are not in good condition. It should only be attempted twice or thrice a day during the first week, and four or five times a day during the second week, and so on until it can be performed twenty consecutive times. The reason why it is suggested that the various exercises should be performed first with one hand, and then with the other, is that complete attention can thus be paid to the one muscle which is being exercised, instead of being divided between the two muscles, as it is when both arms are exercised at once.

As pointed out above, the fundamental principle of this method of body-building and physical development is *the concentration of the mind and will-power upon the muscle under attention*. A movement performed mechanically a thousand times has a less beneficial effect upon the muscle used, than the same movement has, if performed a dozen times with conscious intent to benefit the muscle. After dividing the exercise-time into two parts, and devoting the first part to the triceps muscles, and the second part to the biceps muscles, the student would do well to harden the biceps and triceps muscles of one arm alternately, and then of the other arm alternately, a few times. He will soon find that the muscles respond readily to the will-stimulus, and by the end of the course he will find that he can go through the large muscles of his body, and "call up" each muscle or pair of muscles one after the other in quick succession in response to an effort of will, in addition to being able to see them in distinct and definite individuality.

During the third month of the course, the student should select one exercise from those which develop the biceps muscles, and one from the triceps set, and perform these two for a few minutes each daily, in addition to the following for the development of the pectoralis major muscles.

III. THE PECTORALIS MAJOR.

The pectoralis major muscles are the two large muscles of the chest, running from the breast-bone to the arm-pits. As the shoulders are thrown back these muscles are flattened and extended, and are contracted and thickened when the arms are folded across the chest. They receive a certain amount of exercise in most arm motions, but the following movement is the best for enabling the student to "get at" these muscles, and to exercise them under this system.

Exercise 1 A. Stand at attention. Slightly bend the right arm and push it across the front of the body until the hand is above the left hip. Strain the chest muscle and try and make it "lump up" as much as possible. Hold it so until tired, relax, and repeat.

Exercise 1 b. Perform same motion with left hand.

Exercise 1 c. Perform motion with both hands simultaneously. The student is advised to perform this exercise with both arms at once also, because in the case of these muscles they can be controlled and "felt" better when both are used, than when only one is exercised.

There is no other exercise as efficacious as this one in developing the pectoralis major, and it is therefore desirable to use this one only. After finishing the exercises for all three sets of muscles, the student should spend a minute or two in hardening and relaxing the biceps, the triceps and the pectoralis major, one after the other in quick succession, and should occasionally endeavour to stiffen and relax them by will-power only, without moving any part of the body.

He must also keep in mind the fact that the motion he makes in exercising a muscle must come from the contraction of the muscle, so to speak, and not the contraction of the muscle from the motion. For example, if he desires to "lump up" his biceps, the idea is not "I will raise my hand to my shoulder and this will contract my biceps into a lump," but "I will contract my biceps into a lump and this will bring my hand up to my shoulder". It is not the motion only which benefits the muscle—but the conscious obedience of the muscle to the will-stimulus, and the concentration of the mind upon the muscle in the act of using it.

During the fourth month of the course, the student should divide the time at his disposal for exercising individual muscles, into two parts, one for the new muscle under attention for the month, the other part for continuing the development of the biceps, triceps, and pectoralis major muscles. A good plan is to devote some time in the early morning and again some time in the evening to the work, but the exercises should never be performed immediately after a meal, nor when the performer is faint for want of food or weary after heavy labour. If he is in good health and does the exercises regularly, at the right time, and in moderation (neither too much nor too little) he will soon find that he feels less tired after half an hour's exercising than he did when he started, particularly if he started with the feeling of staleness induced by seden-

tary labour amid unhygienic surroundings. All exercise must of course be taken in fresh air, and if possible in the open air.

IV. THE ANTERIOR DELTOID.

The anterior deltoid muscles are the two muscles which lie immediately above the armpits across the front point of the shoulder. They are used in the act of bowling at cricket, and in striking a blow straight from the shoulder.

Before performing the new exercises, the student must try to identify and exactly locate the muscle, so that he can concentrate his attention upon it and *feel* it while he is exercising. If he stand in the attitude of one holding field-glasses to his eyes, and put a strain upon his arm and shoulder muscles, the anterior deltoid muscle on each shoulder will soon begin to ache and assist identification.

Exercise 1 A. Raise the right hand straight up above the head, palm to the front. Bring it slowly down in front of the body *without bending the elbow*.

Exercise 1 B. Repeat with left hand.

In doing this exercise, imagine that the hand holds an elastic rope hanging from the ceiling, and that it can only be lowered with great difficulty. Watch the anterior deltoid muscle while doing so, and endeavour to strain it and make it ache.

Exercise 2 A. Raise the right fist, clenched, to the shoulder, and strike out straight to the front, slowly as though against resisting pressure.

Exercise 2 B. Repeat with left hand.

Exercise 3 A. Hold the right hand straight out in front of the body, palm upwards. Imagine it holds a heavy weight, and raise the arm slowly upwards until it is perpendicular above the shoulder.

Exercise 3 B. Repeat with left hand.

Perform every exercise until the muscle aches.

Should the student find that he can realize and "get at" the anterior deltoid better with one of the above exercises than with the others, he should adopt that particular one and use it only. All that is necessary is that he should establish a conscious inter-

course between his will and the muscle, and work the muscle with conscious intent to benefit it in the act of working.

The student who has been following this course systematically has exercised first the two great muscles of the arms, the biceps and triceps; then those of the chest, the pectoralis major muscles; and is now exercising those of the shoulders, the anterior deltoid, as the muscles under particular attention for the month (while continuing the exercises previously adopted for the development of the biceps, triceps, and pectoralis major).

Before leaving the shoulders and attending to the chief muscles of the back, abdomen, and legs, the lateral deltoid muscles should be developed by a month's regular exercise and will-concentration.

V. THE LATERAL DELTOID.

During the fifth month of the course the lateral deltoid muscles should be exercised. These are the muscles on the outside of the shoulders and top of the arm, above the biceps and triceps. When they are well developed the shoulders are broad, and have a rounded and sturdy look.

Exercise 1 A. Stand at attention. Raise right hand sideways until it is on level with the shoulder. Palm downwards. Lower again when the muscle aches. Repeat. Imagine that the hand holds a very heavy weight, and perform the action slowly.

Exercise 1 B. Repeat with left hand.

Exercise 1 C. Perform with both hands simultaneously.

As the student already has four other exercises (for the biceps, triceps, pectoralis major, and anterior deltoid respectively) which he has selected from a variety given for the development of the muscles already considered, it will be sufficient if he use only this one for the lateral deltoid instead of three or four others in addition.

He should now divide his exercise time into two equal parts, giving one part to the new muscle, and dividing the other equally among the four already developed.

He has already found undulations and swellings upon his arms and chest, where before was a dreary plain; and an increase in appetite, health, and strength. These improvements will continue

and increase while he exercises sufficiently at the right time, and according to instructions ; particularly so if he is using his will and mind, as well as his body in the work.

The exercises given hitherto for the biceps, triceps, pectoralis major, anterior deltoid, and lateral deltoid muscles have strengthened and developed the arms, chest, and shoulders. The student should now give a month's attention to the muscles of the abdomen.

Not only does the development of these muscles prevent protuberance of that portion of the figure, but gives health and strength, tone and functional activity to the abdominal *organs* also. While raising visible and separate groups of muscle externally, the persevering devotee cures and prevents by exercise, indigestion, constipation, sluggishness of the liver, and other troubles. The exercises are not beautiful, dignified, and graceful in themselves, but neither are the above-mentioned diseases. They are to be performed in the privacy of the chamber and behind closed doors, or a question as to the sanity or orthodoxy of the performer may arise in the minds of the superstitious.

VI. THE ABDOMINAL MUSCLES.

1. *Upper abdominal.* Lie flat on back and rise to sitting position. The heels must be kept on the ground and the hands clasped behind the head. Lie back slowly.

2. *Lower abdominal.* Lie flat on back and raise feet till legs are at right-angles to body. Keep knees unbent, and point toes to the ceiling. Lower slowly.

3. *Rectus abdominis* (between upper and lower). Lie flat on back, and draw the knees up till they nearly touch the chin. Straighten slowly.

4. *Obliquus abdominis* (slanting muscles on each side of the above). Stand erect and then lean well over to right several times, keeping legs straight and stiff. Next lean well over to left several times. Then move from left to right and right to left several times.

These exercises will be found difficult at first, and should increase very slowly and gradually

partially in the beginning, or with assistance from the hands. As in all other exercises the will must be concentrated upon the muscle under consideration, and it must be watched as far as possible and continually thought about. Do not try to do the exercise so as to move the muscle, but *try to move the muscle so as to perform the exercise.*

To his exercises for developing the muscles of the arms (biceps and triceps), chest (pectoralis major), shoulders (anterior and lateral deltoid), and abdomen (upper and lower abdominals, rectus abdominis, and obliquus abdominis) the student should now add the following for the development of the muscles of the back.

VII. THE MUSCLES OF THE BACK.

1. *Erector Spinae.* This important muscle runs vertically up the back over the spinal column.

Exercise. Touch the toes, keeping the knees unbent. Rise up till the hands are straight above the head. Repeat, still keeping knees and elbows unbent. Imagine that the hands hold a heavy weight.

2. *Rhomboides.* The triangular muscle between the shoulders.

Exercise. Stand at attention and then let the hands meet behind the back at the full extent of the arms. From this position raise the hands out sideways until they are level with the shoulders.

In performing this exercise imagine that the hands are joined behind the back by a strong elastic band, and that they have to be raised against the powerful resistance of this.

3. *Latissimus Dorsi.* Below and behind the armpits.

Exercise. (a) Curve the right arm over the head until the fist is above the left ear. From this position straighten the arm out horizontally sideways from the shoulder. Imagine that the hand holds a heavy weight, and put a strain upon the muscle below the armpit. (b) Repeat with left hand.

As in all other exercises, so in these three, the student must

locate, and concentrate upon, the muscle under attention. He is doing the exercise correctly as soon as he *feels* that the muscle he is exercising is actually doing the work and is, as it were, conscious of the operation. If any other muscle tires before the particular one under attention, the exercise is being wrongly performed, or else the mind is not being properly concentrated upon the muscle.

In the eighth month of his year's course the student should add an exercise for the muscles of the thigh to those which he is already performing.

The principal thigh-muscles are the quadriceps, biceps, adductor, and abductor. In the case of these muscles he will see with peculiar distinctness and rapidity the effect of the will and attention in muscle-development. Muscles which have been unconsciously used in walking for years, increase visibly in a few weeks after a daily conscious use in exercises devised specially for them.

VIII. MUSCLES OF THE THIGH.

1. *Quadriceps.* The large muscle above the knee and in front of the thigh.

Exercise. Place heels a foot apart and sink slowly down on to them. Rise slowly. The heels must be kept on the ground.

2. *Biceps.* The muscle at the back of the thigh.

Exercise. Stand on right leg and bend the left at the knee raising the heel as high as possible. Straighten slowly. Repeat with the other leg.

3. *Abductor.* The muscle on the inside of the thigh.

Exercise. Stand at attention. Raise the right leg outwards to the right, as high as it will go. Lower. Repeat with left leg.

4. *Adductor.* The muscle on the outside of the thigh.

Exercise. Stand on right foot with left leg raised outwards to the left as high as possible. Bring it sharply down beside the other. Repeat with the other leg.

In these exercises again, the pupil *must feel* the muscle he is exercising and concentrate his attention upon it. If he does not

cause the abductor muscle, for example, to tire separately and before the others in doing Exercise 3, and the adductor to do so when he is doing Exercise 4, he is not obtaining the full benefit of his labours, either because he is doing the exercise wrongly, or because he is not concentrating his attention upon the muscle exercised.

In the ninth month of his year's course the student should add exercises for the calf muscles to those he is already performing.

IX. THE MUSCLES OF THE CALF.

1. *Gluteus Maximus*. The large muscle at the back of the leg, from knee to ankle.

Exercise. Keeping the heels together rise on the toes as high as possible and from this position sink down upon the heels, which must not be lowered during the exercise. Rise again slowly and repeat.

2. *Tibialis Anticus*. The muscle in front of the leg, from knee to ankle.

Exercise. Rest the full weight of the body on the heels and raise and lower the feet, using the heels as the hinge or pivot.

As in all other exercises concentrate the mind on the muscle which is being exercised. These leg muscles will be more developed by five minutes of this *conscious* exercise than they would be by means of a long walk.

In the tenth month of his year's course the student should add the following exercises to those which he is already performing.

X. THE PRONATORS, SUPINATORS, AND EXTENSORS OF THE FOREARM.

Exercise 1. (a) Extend the arms sideways and imagine that each hand holds a stick horizontally by its end. Keeping the forearm still, circle the hands round from left to right (as though drawing a circle with the other end of the stick). (b) Circle from right to left.

Exercise 2. (a) Extend the arms sideways with the fists clenched, and the back of the hands upwards. Turn the back of the hands downwards and reverse till tired.

In performing these exercises the student must first observe which muscle does the work of the particular movement and then concentrate his mind upon it. He must not try to make the muscle move by doing the exercise—but to do the exercise by making the muscle move. The muscle will then be working through conscious will-stimulus, and obtaining far more benefit than it would otherwise do.

In the eleventh month of the course the student should add exercises for developing the wrist muscles.

XI. THE MUSCLES OF THE WRIST.

These muscles, so useful in tennis, hockey, fencing, rowing, and other sports, are, like the larger muscles, greatly benefitted and developed by exercise under conscious attention and will-concentration.

The exercises are obvious and simple, but not the less necessary and worthy of inclusion in a scheme for all-round muscular development.

Exercise 1. Bend the closed fist forwards as far as possible and return, concentrating the attention on the muscles of the front of the wrist.

Exercise 2. Bend the closed fist backwards as far as possible and return, concentrating the attention on the muscles of the back of the wrist.

Exercise 3. Similarly sideways to the right.

Exercise 4. Similarly sideways to the left.

Exercise 5. Rotate the hand on the pivot of the wrist.

To complete the comprehensive scheme which includes all the important external muscles, the student should finally add exercises for those of the neck. As in the case of those of the wrist the exercises are obvious and simple but none the less important,

XII. THE MUSCLES OF THE NECK.

Exercise 1. Without raising the shoulder, *bend* the head over to the right as far as possible by a conscious contraction of the muscles of the right side of the neck. Return, and bend to the left.

Exercise 2. Without moving the body *turn* the head as far as possible to the right. Return, and turn as far as possible to the left.

Exercise 3. Bend the head backwards as far as possible, return, and bend as far forward as possible.

Having completed the course and trained all the muscles without using any apparatus, the student should procure a pair of dumb-bells of the kind having empty ends which can be filled with discs of lead (provided for the purpose) and their weight gradually increased. Beginning with a weight of two pounds he should gradually increase it by adding a disc to each, month by month, until he has the largest weight that he can easily and comfortably manipulate.

APPENDIX III.

A LIST OF USEFUL HISTORICAL BALLADS AND
HISTORICAL NOVELS.

“The *letter* killeth, the *spirit* giveth life.”—*St. Paul*.

APPENDIX III.

I. USEFUL AND INTERESTING BALLADS TO BE READ IN THE HISTORY LESSON.

PERIOD.	SUBJECT.	TITLE.	AUTHOR.
Ancient British.	King Arthur.	"King Arthur's Death."	(Old Ballad.)
" "	King Lear.	"King Lear."	" "
" "	Boadicea.	"Boadicea."	W. Cowper.
" "	Caractacus.	"Caractacus."	Barton.
9th century.	Alfred the Great.	"Alfred the Harper."	J. Stirling.
10th century.	Crusades, etc.	"The Legend of Sir Guy of Warwick."	(Old Ballad.)
11th century.	The Curfew Bell.	"The Curfew Song of England."	Mrs. Hemans.
" "	Henry I.	"Wreck of the White Ship."	" "
12th century.	Border warfare.	"Chevy Chase."	(Old Ballad.)
" "	Douglas and Hotspur.	"Robin Hood and Allan-a-dale."	" "
" "	Robin Hood.	"Robin Hood and the Bishop."	" "
" "	" "	"Robin Hood and the Widow's Three Sons."	" "
" "	" "	"Robin Hood's Death and Burial."	" "
13th century.	Crusades, Gilbert à Becket.	"Lord Beichan."	" "
" "	King John.	"King John and the Abbot of Canterbury."	" "
" "	Simon de Montfort.	"Evesham."	Pálgrave.
" "	Margaret the Maid of Norway.	"Sir Patrick Spens."	(Old Ballad).
14th century.	Sir Richard Whittington.	"Dick Whittington's Advancement."	" "

I. USEFUL AND INTERESTING BALLADS TO BE READ
IN THE HISTORY LESSON (*continued*).

PERIOD.	SUBJECT.	TITLE.	AUTHOR.
14th century.	Wickliffe.	"Wickliffe's Bible."	G. White.
" "	Agincourt.	"Agincourt."	Drayton.
15th century.	Joan of Arc.	"Joan of Arc."	F. T. Palgrave.
" "	Queen Margaret.	"The Queen's Oak."	C. M. Yonge.
16th century.	Battle of Flodden.	"Edinburgh after Flodden."	Aytoun.
" "	James IV. of Scotland.	"The Battle of Flodden."	T. Delaney.
" "	" "	"Flodden."	Scott.
" "	Border raiding, James V. of Scotland.	"Johnny Armstrong."	(Old Ballad.)
" "	The Spanish Armada.	"The Spanish Armada."	G. E. Maundsell.
" "	" "	" "	Macaulay.
" "	Spanish Wars.	"The Revenge : A Ballad of the Fleet."	Tennyson.
" "	" "	"The Brave Lord Willoughby."	(Old Ballad.)
" "	" "	"Mary Ambree."	" "
17th century.	Earl of Essex.	"The Death of Essex."	(Old Ballad.)
" "	Montrose.	"The Execution of Montrose."	Aytoun.
" "	The Pilgrim Fathers.	"The Landing of the Pilgrim Fathers."	Mrs. Hemans.
18th century.	Marlborough.	"The Battle of Blenheim."	Addison.
" "	The Battle of Blenheim.	" "	Southey.
19th century.	Nelson and the Battle of the Baltic.	"The Battle of the Baltic."	T. Campbell.
" "	Sir John Moore.	"The Burial of Sir John Moore."	Wolfe.
" "	Waterloo.	"Eve of Waterloo."	Byron.
" "	The Crimean War.	"The Charge of the Light Brigade."	Tennyson.
" "	" "	"The Heavy Brigade."	"
" "	The Indian Mutiny.	"The Defence of Lucknow."	"
" "	Queen Victoria.	"Victoria's Promise."	C. J. Coleridge.

II. USEFUL AND INTERESTING HISTORICAL NOVELS TO BE READ AT HOME.

A. ENGLISH HISTORY.

• PERIOD. •	SUBJECT.	TITLE.	AUTHOR.
Ancient British. 9th century. 10th century.	Roman Invasion. Alfred the Great. Danes.	"Beiric, the Briton." "Dragon and Raven." "King Olaf's Kinsman."	Henty. " " Whistler.
11th century.	Harold and William I.	"Harold."	Lytton.
" "	Normans and Saxons.	"Hereward the Wake."	Kingsley.
12th century.	Crusades.	"The Talisman."	Scott.
" "	Norman England.	"Ivanhoe."	" "
13th century.	Magna Carta.	"Runnymede and Lincoln Fair." "A Clerk of Oxford."	Edgar. Green.
" "	Plantagenet England.	"The Days of Bruce."	Grace Aguilar.
14th century.	Scotland.	"The White Company."	Conan Doyle.
" "	100 Years' War.	"Crecy and Poitiers."	Edgar.
15th century	" "	"At Agincourt."	Henty.
" "	" "	"Agincourt."	James.
" "	Wars of the Roses.	"The Last of the Barons."	Lytton.
" "	" "	"The Black Arrow."	Stevenson.
" "	" "	"For the Red Rose."	Henty.
" "	" "	"The Chantry Priest of Barnet."	Church.
" "	Henry VII.	"The Armourer's Apprentice."	Yonge.
16th century.	Henry VIII.	"Windsor Castle."	Ainsworth.
" "	Mary.	"The Tower of London."	" "
" "	Elizabethan England.	"Westward Ho!"	Kingsley.
" "	Elizabeth and the Earl of Leicester.	"Kenilworth."	Scott.
17th century.	The Gunpowder Plot.	"Guy Fawkes."	Ainsworth.
" "	James I.	"The Fortunes of Nigel."	Scott.

II. USEFUL AND INTERESTING HISTORICAL NOVELS TO BE READ AT HOME.

A. ENGLISH HISTORY (*continued*).

PERIOD.	SUBJECT.	TITLE.	AUTHOR.
17th century.	Charles I. and the Great Rebellion	"With the King at Oxford."	Church.
" "	" "	"A Legend of Montrose."	Scott.
" "	The Commonwealth.	"Woodstock."	"
" "	The Great Fire of London.	"When London Burned."	Henty.
" "	The Great Plague.	"London Pride."	Burnett.
" "	" "	"Old St. Paul's."	Ainsworth.
" "	Monmouth's Rebellion and Judge Jeffreys.	"Micah Clarke."	Conan Doyle.
" "	" "	"Lorna Doone."	Blackmore.
" "	" "	"For Faith and Freedom."	Besant.
" "	William III. Marlborough.	"Shrewsbury."	Weyman.
18th century.		"With Marlborough to Malplaquet."	Strang.
" "	Charles Stuart.	"Bonnie Prince Charlie."	Henty.
" "	Quebec and Canada.	"With Wolfe in Canada."	"
" "	The Jacobites.	"For James or George."	Adams.
" "	" "	"Kidnapped" and "Catriona."	Stevenson.
19th century.	Peninsular War.	"Romance of War"	Grant.
" "	" "	"With Mooie at Corunna."	Henty.
" "	Waterloo.	"Under Wellington's Command."	"
" "	The Crimean War.	"A Gallant Grenadier."	Brereton.
" "	Boer War.	"With Buller in Natal."	Henty.
" "	" "	"With Roberts to Pretoria."	"

B. INDIAN HISTORY.

PERIOD.	SUBJECT.	TITLE.	AUTHOR.
B.C.	The Vedic Age.	"The Redemption of the Brahman."	Garbe.
16th century.	Akhbar.	"Akhhbar."	Romesh Chunder Dutt.
" "	"	"Bimala the Diwan's Daughter."	" "
" "	Sivaji.	"Tara."	Taylor.
" "	Aurangzebe.	"A Noble Queen."	"
" "	Moghul Period.	"Prince Baber and his Wives."	Ford.
" "	Rajputs.	"Rajasthan."	Tod.
18th century.	Clive.	"With Clive in India."	Henty.
" "	"	"One of Clive's Heroes."	Strang.
" "	"	"Like another Helen."	Grier.
" "	Mysore.	"The Tiger of Mysore."	Henty.
" "	Tippu Sultan.	"Tippu Sultan."	Taylor.
" "	Downfall of the Maratha power.	"Pandurang Hari."	Hockley.
19th century.	Burmah.	"On the Irrawaddy."	Henty.
" "	First Afghan War.	"To Herat and Kabul."	"
" "	Sikh War.	"Through the Sikh War."	"
" "	The Mutiny.	"On the face of the Waters."	Steel.
" "	" "	"Seeta."	Taylor.
" "	" "	"Flotsam and Jetsam."	Seton Merriman.
" "	Second Afghan War.	"With Roberts to Kandahar."	Brereton.